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Speculative Reason and Religious Experience in Whitehead

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SPECULATIVE REASON AND RELIGIOUS EXPERIENCE IN WHITEHEAD

by

William Martin O'Meara

**A Dissertation Submitted to the Faculty of the Graduate School
of Loyola University in Partial Fulfilment of
the Requirements for the Degree of
Doctor of Philosophy**

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LIFE

William Martin O'Meara was born in Chicago, Illinois, December 5, 1940. After graduating from Quigley Preparatory Seminary, Chicago, in June, 1959, he attended St. Mary of the Lake Seminary, Mundelein, Illinois, until January, 1962. He graduated from Loyola University in January, 1963, with the degree of Bachelor of Arts.

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LIST OF ABBREVIATIONS

The following abbreviations have been used for the most frequently cited works of Whitehead. Full publication data for these works are stated in the first reference for each work and in the Bibliography.

<u>AI</u>	<u>Adventures of Ideas</u>
<u>FR</u>	<u>The Function of Reason</u>
<u>MT</u>	<u>Modes of Thought</u>
<u>PR</u>	<u>Process and Reality</u>
<u>SMW</u>	<u>Science and the Modern World</u>

INTRODUCTION

Recent, conflicting interpretations of Whitehead's metaphysics point to a serious problem in his philosophy. The problem is that of the place of religious experience in Whitehead's metaphysics. On the one hand, there is the Christian-Lowe-Leclerc interpretation, according to which knowledge of God for Whitehead is primarily by way of inference from the knowledge of this world.¹ On the other hand, there is the Tillich-Hartshorne interpretation, according to which knowledge of God is primarily by way of religious intuition and secondarily by way of inference.² These conflicting interpretations need to be described further in order to isolate the problem of this study.

1 William A. Christian, An Interpretation of Whitehead's Metaphysics (New Haven: Yale University Press, 1959) p. 386; Victor Lowe, "The Approach to Metaphysics," The Relevance of Whitehead, ed. Leclerc (New York: Macmillan Co., 1961) pp. 193-216; Ivor Leclerc, Whitehead's Metaphysics (New York: Macmillan Co., 1958) pp.

2 Paul Tillich, Systematic Theology, Vol. I, (Chicago: University of Chicago Press, 1951) pp. 9, 43; Charles Hartshorne, "Whitehead's Idea of God," The Philosophy of Alfred North Whitehead, ed. P.A. Schilpp (New York: Tudor Publishing Co., 1951)

Christian recognizes in "the last Part of Process and Reality, in the final chapters of Adventures of Ideas, and elsewhere that he [Whitehead] speaks of a 'Harmony of Harmonies' which is both the basis of morality and the object of religious experience."³ Just as this religious experience is relevant to man's seeking of the practical good in morality and religion, so also it is relevant to man's seeking of the speculative good in metaphysics. Christian suggests that Whitehead's speculative philosophy is not pure speculative philosophy proceeding only from a speculative interest. A religious interest has a basic influence on Whitehead's attempt to do speculative philosophy.⁴ This interest presupposes the existence of the proper object of man's worship. For the religious interest leads to asking the basic religious question in a form such as this: "What is it that rightly claims worship?"⁵

Although the religious experience presupposes the existence of the proper object of man's worship, Christian argues that

p. 538; Hartshorne, "Ideal Knowledge Defines Reality: What Was True 'Idealism'", Journal of Philosophy XLIII, no. 21 (Oct. 10, 1946) p. 4.

3 William A. Christian, "Some Uses of Reason," The Relevance of Whitehead, ed. Leclerc, p. 85; Whitehead, Adventures of Ideas (New York: Macmillan Co., 1961) p. 367. (Hereafter referred to as AI.)

4 Christian, loc. cit.

5 Christian, ibid., p. 86.

knowledge of God's existence is a conclusion of Whitehead's metaphysics and not a fundamental point of departure. Christian interprets Whitehead's statement that God is the ultimate irrationality in Science and the Modern World to mean that "we have no pure and self-evident principles from which the existence of God . . . could be deduced. Our belief in the existence of God is irrational only in the weak sense that it is logically based on the reality of the given temporal world, accepted as a fact.⁶ Even though Christian holds that the categories of explanation, such as the ontological principle are logically ineffective without Whitehead's notion of God, Christian argues that the concept of God is a derivative notion in Whitehead's metaphysics.⁷ Consequently, it is Christian's view that religious experience is not relevant to the truth of Whitehead's categories of explanation such as the ontological principle.

Whitehead's ontological principle is his version of the principle of sufficient reason. Lowe's interpretation of this principle agrees with Christian's interpretation:

6 William A. Christian, An Interpretation of Whitehead's Metaphysics, p. 386; cf. Whitehead, Science and the Modern World (New York: Macmillan Co., 1926) p. 257. (Hereafter referred to as SMW.)

7 Christian, "Some Uses of Reason," op. cit., p. 85; cf. Christian, "The Concept of God as a Derivative Notion," Process and Divinity, eds. Reese and Freeman (Lasalle: Open Court, 1964) pp. 181-203.

"That the universe, or being, is intelligible, is often said to be an indispensable and undeniable premise of metaphysics. But Whitehead has shown how the matter can and should be conceived:

'That we fail to find in experience any elements intrinsically incapable of exhibition as examples of general theory, is the hope of rationalism. This hope is not a metaphysical premise. It is the faith which forms the motive for the pursuit of all sciences alike, including metaphysics.

In so far as metaphysics enables us to apprehend the rationality of things, the claim is justified.'⁸

Leclerc's comment on this text is similar to Lowe's.

The belief and hope that the world is intelligible is not a metaphysical premise which discloses anything about the metaphysical truths of the universe. Rather this hope is an ideal which is seeking satisfaction, since it is intrinsically inherent in rationalism as such. This ideal is inherent in any attempt to find rational explanation. Consequently, a rational attempt to deny this ideal of seeking rational explanation is self-contradictory.⁹

On the one hand, then, the Christian-Lowe-Leclerc interpretation is that Whitehead establishes his point of departure in metaphysics, his ideal that the world is intelligible and his categories of explanation such as the ontological principle, without any appeal to religious experience. But on the other hand,

⁸ Victor Lowe, "The Approach to Metaphysics," The Relevance of Whitehead, ed. Leclerc, p. 210; cf. Whitehead, Process and Reality (New York: Macmillan Co., 1930) p. 67. (Hereafter referred to as PR.)

⁹ Ivor Leclerc, Whitehead's Metaphysics, p. 37.

the Tillich-Hartshorne interpretation is that Whitehead's fundamental point of departure in metaphysics is his appeal to religious experience.

Tillich holds that the fundamental commitment which directs Whitehead's philosophical approach is a type of mystical or religious experience, namely, the awareness of value-producing processes. This perception and conception of reality is based on an immediate experience of something ultimate in value and being of which man can become aware intuitively.¹⁰ Although Tillich does not specify the texts of Whitehead in which this intuitive awareness is described, he is probably referring to the Modes of Thought description of the sense of Deity. For Shahan interprets this book as having "numerous references . . . to an ultimate unity in the universe which can be experienced objectively and which is the final basis of 'importance' and 'significance.' . . . The totality is described as objectively experienced in a direct fashion."¹¹

Hartshorne's interpretation agrees with Tillich's interpretation. Hartshorne argues that the sense of Deity is related to the very possibility of man's knowledge of objective truth,

10 Paul Tillich, Systematic Theology, Vol. I (Chicago: University of Chicago Press, 1951) pp. 9, 43.

11 Ewing P. Shahan, Whitehead's Theory of Experience (New York: Columbia University, 1950) pp. 127-128.

including metaphysical truth.¹² In Whitehead's type of metaphysics, Tillich points out, "God is the presupposition of the question of God, or as Augustine argues more specifically, Veritas is presupposed in every philosophical argument; and veritas is God."¹³ The Tillich-Hartshorne interpretation, then, is that man implicitly knows that God is, or in other words, man is immediately aware of God as Truth Itself, in any attempt of speculative reason to state an objectively true statement. This implicit awareness of God becomes explicit in religious experience. Consequently, Whitehead's point of departure in metaphysics cannot be described accurately without taking account of his description of religious experience and its relevance to the presuppositions of metaphysics.

The conflicting interpretations of Tillich-Hartshorne and Christian-Lowe-Leclerc on the fundamental presuppositions of Whitehead's metaphysics and the relevance of religious experience to them raise a serious problem in the understanding of Whitehead's metaphysics. This study proposes to examine the serious problem of the relevance of Whitehead's description of religious experience as the sense of Deity to the fundamental presupposi-

¹² Charles Hartshorne, "Whitehead's Idea of God," op. cit., p. 538; Hartshorne, "Ideal Knowledge Defines Reality: What Was True in 'Idealism,'" op. cit., pp. 573-582.

¹³ Paul Tillich, "The Two Types of Philosophy of Religion," Union Seminary Quarterly Review, I, no. 4 (May, 1946) p. 4.

tions of his metaphysics. Lowe and Leclerc have indicated that the ontological principle and the ideal of rationalism, namely, that the world is intelligible, are closely connected fundamental presuppositions of Whitehead's metaphysics. Assuming what chapter four will show, namely, that the ontological principle is only a restatement of the ideal of rationalism, this study will examine the relevance of the sense of Deity to the ideal of rationalism, that is, to the function of speculative reason. For the function of speculative reason is to attain the ideal of rationalism, a complete metaphysics, a complete understanding of the general, rational principles which all particular facts exemplify.¹⁴

The purpose of chapter one is to discuss Whitehead's definition of speculative philosophy and its method as the definition of the function of speculative reason. Chapter two shows that the function of speculative reason is defended by rational religion and the religious intuition as the sense of Deity. Chapter three shows that the sense of Deity and other defenses of the function of speculative reason mutually supplement each other. It will be pointed out that these various defenses need to be fulfilled by the best defense possible, namely, by the successful working out of a speculative understanding of reality. For

¹⁴ Whitehead, The Function of Reason (Boston: Beacon Press, 1958) p. 65. (Hereafter referred to as FR.)

Whitehead's method of the working hypothesis demands that the function of speculative reason needs to be achieved with some success; otherwise it would be a worthless ideal for man's civilized life. However due to the imperfections of metaphysical systems, it is possible for man to lose hope in this ideal. Consequently, Whitehead's appeal to the sense of Deity is important for man to continue to have faith in the ideal of speculative reason. Chapter four sums up these conclusions of the previous chapters and considers two new problems related to this study.

In this study of the relevance of the aesthetic-religious sense of Deity to the function of speculative reason, it is important to point out that although Whitehead began his academic career as a teacher of philosophy at age 63, he was always interested in the relevance of aesthetic and religious considerations to man's life. The reader of chapter five of Science and the Modern World, "The Romantic Reaction," recognizes the significant influence which the Romantic poets had upon Whitehead's metaphysics.¹⁵ Whitehead's interest in Wordsworth and Shelley was acquired in preparatory school.¹⁶ He himself points out, "My

¹⁵ SMW, pp. 109-138.

¹⁶ Whitehead, "Autobiographical Notes," The Philosophy of Alfred North Whitehead, ed. P.A. Schilpp, p. 6. This article gives a brief autobiography of Whitehead.

writings on philosophy were all after I came to this country [United States]; but the ideas had been germinating in me for the better part of a life time. Some of them I had had when I was at school before ever I went up to the university."¹⁷

Whitehead's marriage to Evelyn Willoughby Wade emphasized what he had learned from the nature-poetry of the romantic revival. "Her vivid life has taught me that beauty, moral and aesthetic, is the aim of existence; and that kindness, and love, and artistic satisfaction are among its modes of attainment."¹⁸ Whitehead accepted the Romantic poets' "protest against the exclusion of value from the essence of matter of fact."¹⁹ Chapter two will especially examine how the sense of Deity establishes for Whitehead that value is of the essence of matter of fact. In doing that, the sense of Deity helps to establish the fundamental presupposition of Whitehead's metaphysics, the function of speculative reason.

17 Lucien Price, Dialogues of Alfred North Whitehead (Boston: Little, Brown, and Co., 1954) pp. 326-327.

18 Whitehead, "Autobiographical Notes," op. cit., p. 8.

19 SMW, p. 138.

CHAPTER I

SPECULATIVE PHILOSOPHY AS THE FUNCTION OF SPECULATIVE REASON

The purpose of this chapter is to identify and define speculative philosophy as the function of speculative reason. The exposition begins with a discussion of evolution and the functions of both speculative and practical reason. This consideration of evolution and reason offers a preliminary identification of the function of speculative reason. Then the chapter examines some of the history of speculative reason in order to give an exact definition of speculative philosophy and its method. Speculative philosophy is the discipline in which Whitehead attempts to fulfill the function of speculative reason.

Before the exposition of Whitehead's concept of the function of speculative reason, the difficulty should be raised of his presupposing his speculative understanding of evolution in order to explain the function of speculative reason. The difficulty is whether or not Whitehead begs the question since reason will be that which discovers this view of evolution. Whitehead answers this difficulty by arguing that there is no way to begin in philosophy other than "to start somewhere for purposes of dis-

course. But the philosopher, as he argues from his premises, has already marked down every word and phrase in them as topics for future enquiry."¹ One way of avoiding the difficulty of begging the question in understanding the function of speculative reason is to make a start somewhere, not forgetting that the starting point needs to be re-examined. Another aspect of Whitehead's avoiding this difficulty is that he will appeal to flashes of insight, to the intuition and understanding of self-evidence.²

"The attempt of any philosophic discourse should be to produce self-evidence."³ The philosopher must begin somewhere but must not assume that where he begins is a finality never to be questioned. Whitehead asserts this point because of an insight into the nature of human language, the insight that man's experience of language is not a perfect knowledge but has many obscurities connected with it.⁴ In trying to understand the function of speculative reason Whitehead will appeal to flashes of insight in order to avoid any begging of the question.

1 Whitehead, Modes of Thought (New York: Macmillan Co., 1938) p. 23.

2 PR, p. 6.

3 MT, p. 67.

4 MT, p. 235.

A. Evolution and the Functions of Practical and Speculative Reason

Keeping in mind that a starting point needs to be re-examined, Whitehead offers "a preliminary definition of the function of Reason, a definition to be illustrated, distorted, and enlarged. . . . The function of Reason is to promote the art of life."⁵ He explains this definition by a discussion of the evolutionist doctrine of the survival of the fittest. There are two limitations of the doctrine of the survival of the fittest. The first is that although the doctrine may explain why differing species arise, it does not appear able to explain the origin of living matter. For living matter is comparatively deficient in survival value. Inorganic things persist for great lengths of time whereas organic things hardly persist at all. A rock survives for eight hundred million years whereas the limit for a tree is about a thousand years, for a man about a hundred years, for a dog about twelve years, for an insect about one year.

The problem for the theory of evolution is to explain how complex organisms with such deficient survival power ever evolved. The doctrine of the survival of the fittest would explain very well why rocks have survived but not why organic things have arisen from inorganic matter.⁶ The second limitation is that

5 FR, p. 4.

6 RR, pp. 4-5.

this doctrine cannot explain why the trend of evolution has been upwards. The upward trend is not explained by any doctrine of adaptation to the environment or of the survival of the fittest. The fact is not simply that living things have adapted to their environments but just as much that living things have adapted their environments to themselves. The more complex forms of life are actively modifying their environment, and it is very significant that man actively attacks his environment.⁷

Whitehead is ready to develop his preliminary definition of the function of reason:

I now state the thesis that the explanation of this active attack on the environment is a three-fold urge: (i) to live, (ii) to live well, (iii) to live better. In fact the art of life is first to be alive, secondly to be alive in a satisfactory way, and thirdly to acquire an increase in satisfaction. It is at this point of our argument that we recur to the function of Reason, namely the promotion of the art of life. The primary function of Reason is the direction of the attack on the environment.⁸

His thesis of a three-fold urge in life is an understanding which requires that reason be "a factor in experience which directs and criticizes the urge towards the attainment of an end realized in imagination but not in fact."⁹ Whitehead is asserting that final causality is a partial explanation of life.

7 FR, pp. 7-8.

8 FR, p. 8.

9 FR, p. 8.

Final causality, the grasping of a potential end as the formal cause of a living thing, requires that the living thing have a mental, non-physical factor which grasps the unactualized, the non-physical. Reason or the mental factor of a living thing is the source of a three-fold urge involved in the art of life: the urge to live, to live well, and to live better. The art of life requires a three-fold urge rather than simply the urge to live, since otherwise the facts of emergent evolution would be unintelligible. The upward trend of emergent evolution requires more than just the urge to live and more than just the urge to live well, in order to continue evolutionary development. This three-fold urge of the art of life does not involve three different types of causality but rather is only one type, final causality. The final causality involved in the three-fold urge is the grasping of novel potential ends.

Man's reason has developed out of this three-fold urge as life in its mental and physical aspects has become more complex. The fundamental base of the activity of reason is purposive seeking of novel potential ends. Whitehead points out that the appetite of novel ends is anarchic in seeking to live well by perfecting the living thing and in seeking to live in a better way by changing the established order in an upward trend. The multiple species and mutations that have been lost in the struggle for existence in evolution bear witness to the anarchic novelties

introduced by the mental factor in living things. The novel ends cannot be completely anarchic since sheer anarchy means complete nothingness. For the appetition of sheer anarchy by the mental factor in a living thing would mean the mental appetition of such impossibilities as a square-circle.¹⁰ Man's reason is the developed mental factor which seeks to live, to live well, and to live better. Man's reason seeks to live well by fulfilling in an orderly and satisfactory way the novelties projected by mentality. Man's reason seeks to live better by evaluating and ordering the projected novelties. In man's reason mentality has become self-regulative. By evaluating the purposes of mentality, reason introduces a higher appetition into man's life.¹¹ Whitehead insists upon final causality as a fundamental aspect of reason:

Provided that we admit the category of final causation, we can consistently define the primary function of Reason. This function is to constitute, emphasize, and criticize the final causes and strength of aims directed towards them. . . . Apart from this primary function the very existence of Reason is purposeless and its origination is inexplicable. In the course of evolution why should the trend have arrived at mankind, if his activities of Reason remain without influence on his bodily actions. It is well to be quite clear on the point that Reason is inexplicable if purpose be ineffective.¹²

This theory defines the primary function of reason as

10 FR, pp. 33-34.

11 FR, p. 34.

12 FR, pp. 26-27.

practical: (i) to constitute final causes, that is, to live; (ii) to emphasize final causes, that is, to live well; and (iii) to criticize final causes, that is, to live better. The function of practical reason is to achieve a purpose exterior to the satisfaction of reason itself. In order to achieve this purpose, reason elaborates a methodology, a way of doing something. When the purpose is achieved, practical reason is fulfilled and satisfied.¹³

The operation of practical reason may be compared to and understood as an aspect of the evolutionary process. The discovery of a methodology that solves a problem for man is quite similar to the discovery of a way to live for a species. The use of this methodology solves the problem for man just as the use of a way to live solves a difficulty in the environment for a species. The successful use of the methodology or way to live continues until fatigue or a new problem arises. At this point man or some species may refuse to overcome the fatigue or new problem and simply keep to the old way of doing things. But man or some species may attempt to overcome the fatigue or problem by seeking from the background of experience a novel potential form, a new methodology or way of living. If the new methodology is successful, the problem is overcome for man or some species; and

13 FR, p. 37.

the upward trend of evolution continues. If the new method is unsuccessful, the problem is not solved; and a race of men or some species may die out. The discovery of a methodology by practical reason is in its essence the discovery of a way to live by the mental factor of a reality selecting a novel potential goal.¹⁴

Although the primary function of Reason is practical, namely, to constitute, emphasize, and criticize final causes and the strength of aims towards them, reason also has a speculative function. In its speculative function, reason is not subordinated to any purpose other than its own purpose of understanding everything in terms of principles intelligible to itself. Speculative reason is the result of a disinterested curiosity in the intelligibility of the world, the result of an ultimate faith that the world is intelligible. Reason fulfills its speculative function and gains its sole satisfaction when it understands all particular facts in terms of general principles of reason.¹⁵

Whitehead suggests that this interest in the relation of particular facts to general principles is an aspect of the character of the modern mind as it has been influenced by science and Christianity. In previous epochs, geniuses such as Aristotle, Archimedes, and Roger Bacon must have had this belief that every

14 FR, pp. 18-19.

15 FR, p. 37-38.

particular fact can be conceived as an exemplification of general principles. In previous epochs there have always been practical men interested in particular facts and men of philosophic temper interested in general principles, but the uniting of these two interests has only been sporadic. Today, however, it is a common belief of the modern mind that the two interests must be united.¹⁶ This belief is due to the great success of science.

Whitehead finds two sources for the great success of science in modern Europe since the time of Galileo. The first source is the rise of Naturalism in the Renaissance in which there is an interest in natural occurrences and objects for their own sakes. Whitehead also points out the importance of the technology of the Benedictine monasteries in agriculture; this technology kept the medieval mind in contact with particular fact.¹⁷ Whitehead remarks that the emphasis on natural things in the Renaissance was due to an aesthetic interest. "The whole atmosphere of every art exhibited a direct joy in the apprehension of the things which lie around us."¹⁸ The second source for the success of science comes from Christian faith in God as influenced by Greek philosophy in the Medieval Scholasticism. The medieval

16 SMW, pp. 3-4, 7.

17 SMW, pp. 22-23.

18 SMW, p. 23.

insistence on the rationality of God whose providence governed every particular fact helped to impress on the modern mind an instinctive belief in an intelligible order in nature. The Asiatic conception of God where God is either too arbitrary or too impersonal has not created such an instinctive belief.¹⁹

Whitehead points out the importance of the instinctive quality of the belief in an order of nature. So long as men's activities in speculative thought are controlled by this settled instinct, it does not matter what men may say in words. Words of disbelief in the order of nature may ultimately destroy man's belief in the function of speculative reason. But until this destruction has occurred, words do not count. These considerations are important with respect to the history of scientific thought. For since the time of Hume, the fashionable scientific philosophy has been to deny the rationality of science. Hume's denial of any possible knowledge of a necessary connection between a cause and its effect should give the result that science can only establish arbitrary connections between causes and effects. But implicitly scientists have ignored Hume's explicit rejection of the cause-effect connection and have followed Hume's instinctive belief that cause and effect are necessarily connec-

19 SMW, pp. 18-19.

ted, that there is an order of nature.²⁰ The understanding of all the particular facts of nature in terms of general principles will disclose the order of nature and thereby fulfill the function of speculative reason.

B. The Relevance of Speculative Reason's History for an Exact Definition of Its Function and Method

The preliminary identification of speculative reason's function given in the discussion of evolution and reason needs to be clarified. An examination of the history of speculative reason will be offered in order to give an exact definition of the discipline, speculative philosophy, and its method for fulfilling the function of speculative reason.

When speculative reason first emerged as a distinguishable force in the life of man, it came in the form of sporadic inspirations. Prophets and seers spoke their inspirations of moral insight and religious salvation. These speculative insights were relevant to the traditional ways and yet novel, transcending the old ways. However, the difficulty was and has always been that the world's experience of professed seers has been mostly unfortunate. Among those claiming to be prophets, there are the insincere, the presumptuous, the ignorant, the incompetent, and

20 SMW, pp. 5-6; cf. David Hume, Enquiry Concerning Human Understanding, sections V and VI, ed. L.A. Selby-Bigge (Oxford: Clarendon Press, 1902) pp. 40-59.

the unbalanced. Speculative reason needed some method of testing its sporadic inspirations.²¹

Then the Greeks "discovered the almost incredible secret that the speculative Reason was itself subject to orderly method. They robbed it of its anarchic character without destroying its function of reaching beyond set bounds."²² It is the function of speculative reason to understand all methods as coordinated in a nature of things only to be grasped by transcending all method, that is, by piercing into the ultimate reasons beyond limited reasons. But in transcending all the successful methodologies of practical reason and the mathematical and scientific methods of speculative reason, metaphysical speculative reason must be bound by some orderly method; otherwise its results will be untrustworthy. The Greeks replaced inspirations of reason with speculative reason. They discovered how speculative reason is to be bounded by method even while it transcends the limitation of any of its own methods and methodologies.²³

Whitehead explains the Greek discovery that speculative reason is itself subject to orderly method:

21 FR, pp. 66-67.

22 FR, pp. 66-67.

23 FR, pp. 65-67, 82.

The Greeks invented logic in the broadest sense of that term--the logic of discovery. The Greek logic as finally perfected by the experience of centuries provides a set of criteria to which the content of a belief should be subjected. These are:

- (i) Conformity to intuitive experience:
- (ii) Clarity of propositional content:
- (iii) Internal Logical consistency:
- (iv) External Logical consistency:
- (v) Status of a Logical scheme with,
 - (a) widespread conformity to experience,
 - (b) no discordance with experience,
 - (c) coherence among its categoreal notions,
 - (d) methodological consequences.²⁴

As perfected by the experience of centuries of mathematics, science, and philosophy, the Greek logic of discovery provides a set of criteria by which any speculative understanding of reality should be tested, whether the understanding be metaphysical or non-metaphysical. It is a misconception to hold that the criteria are easy to use. The Greeks and the medievals thought that clear and distinct premises which conformed to experience were very easily known. Accordingly, they were careless in their evaluation of premises and devoted to the elaboration of deductive systems. The philosophers of Modern Europe from 1600 to 1900 have also assumed that clear and distinct premises which conform to experience are easily known. In Whitehead's view, the first two criteria, (i) conformity to intuitive experience and (ii) clarity of propositional content, are extremely difficult to

²⁴ FR, pp. 67-68.

fulfill. In fact there are difficulties with the fulfilment of all five criteria.²⁵

The First Criterion

The first criterion is that a belief should have conformity to intuitive experience. One difficulty with fulfilling the first criterion is that there are always interpretative elements in experience. The Conceptual Order of experience, man's general way of conceiving the universe, controls to a great extent the interpretation of the Observational Order of experience, his direct, immediate discriminations of particular observations. Some theory of reality, often unexpressed, is present in the observation of reality, dictating what method is to be used in looking for evidence and how it is to be interpreted. Unanticipated, novel observations are rare occurrences. Because such observations are unexpected, their significance may be lost if there is no scheme of ideas to interpret them.²⁶

A second difficulty with fulfilling the first criterion is the obscurity and variety of experience. The conventional view of experience is that conscious experience is a clear-cut knowledge of clear-cut items with clear-cut connections with each other. However, the evidence is against such an equating of ex-

25 AI, pp. 198, 283-284; FR, p. 68.

26 FR, p. 72.

perience with clarity of knowledge. The clarity cannot be separated from the vagueness of experience. There is a focus of attention bringing to clear light a few items, having vague interconnections with dimly apprehended items. Besides this ambiguous character of an immediate moment of experience, the moments differ among themselves in their meaning and importance for a man. He can be alert, drowsy, excited, contemplative; man's variety of phases is infinite.²⁷

A third difficulty with fulfilling the first criterion is the finiteness of human intuition. Consciousness is able to know the world only through a selective emphasis from the totality of experience.²⁸ Any intuition is an abstraction, a selection, which has assumed its clarity and self-evidence by neglecting other facets of experience. These other facets of experience may have important modifications upon the self-evidence of the original intuition.²⁹ Since man's finite understanding is unable to grasp the totality of finite perspectives in the universe by one act of understanding, no intuition of experience claiming to be self-evident is irreformably true.³⁰

27 FR, pp. 78-79.

28 PR, p. 22.

29 MT, pp. 143-144.

30 MT, p. 58.

Intuition of self-evidence on an abstract level such as mathematics is absolutely true. But once that level is deserted, fundamental transformations of meaning can occur in the relating to the rest of experience.³¹ There is a sense of completion in an act of intuition, but the completion is not final. For the material understood presupposes an undefined environment which is in process of change. Hence understanding is never a finished, static state of mind but always bears the character of a process of penetrating, incomplete and partial.³²

There are two modes of understanding a reality in process: internal understanding and external understanding. Internal understanding conceives the reality as the unified outcome of its composite factors. The knowledge of the factors in their inter-relationship makes evident why the thing is what it is, a unified outcome. Any reality so understood is to be viewed as an outcome in the strict sense of being a product of the interweaving of its composite factors.³³ There is no such thing for Whitehead as the internal understanding of an abstract, unchanging tautology. Tautology as a prevalent modern doctrine holds that 'two-times-three' is the same thing as 'six' and that, consequently, no

31 RM, p. 78.

32 MT, p. 60.

33 MT, p. 63.

new truth is arrived at in relating the two phrases in an identity. Whitehead contends that such a sentence considers a process and its resulting outcome. The phrase 'two-times-three' indicates a form of fluent process, and 'six' indicates a characterization of its resulting outcome. Since there is no such entity as a mere static number, that is to say, since there are only numbers playing their parts in various processes in reality, it is not true that the process of fusing two groups of three necessarily issues in a group of six. It is not true that the process of fusing two groups of three drops of water necessarily issues in one group of six drops of water; one drop could be the result or more than six could be the result. Internal understanding does occur but does not result in mere tautologies.³⁴

Internal understanding leads into external understanding. This second mode of understanding "is to treat the thing as a unity, whether or not it be capable of analysis, and to obtain evidence as to its capacity for affecting the environment."³⁵ Since the unified outcome of the interweaving of a group of facts can itself become a factor in the realities which it can causally affect, internal understanding does not suffice for a complete understanding of the reality in question. When this reality as a

34 MT, pp. 124-125, 127-128.

35 MT, p. 63.

unified outcome of factors becomes itself a factor in another reality, another act of internal understanding is needed in order to grasp how the first reality becomes a factor in the unified outcome of the second reality. Accordingly, internal and external understanding presuppose each other. The former mode conceives the thing as an outcome of its causal, composite factors, and the second mode conceives the thing as becoming a causal factor in the composition of other realities.³⁶

These reflections on internal and external understanding suggest another difficulty concerning the fulfilment of the first criterion that a belief should have conformity to intuitive experience. Since nothing is finally understood until its reference to process have been made evident, the truths that apply to an individual reality in process must apply to it as an individual in process, or else the truths are without meaning. The problem is how truth can be general, applying to all individuals in process, and at the same time unique, applying to each individual in process as that individual is. Whitehead's answer to this difficulty is the use of analogy. For example, it may be possible to compare two ultimate units of reality in the following way: unity 'A' is different from unity 'B' since the one is not the other; yet the unities are similar since both are the unified

outcomes of their composite factors. In seeking the general rational principles that all ultimate realities exemplify, the procedure of rationalism is the discussion of analogy, the discovery of identities (similarities) amid diversity. For to state that the ultimate realities such as 'A' and 'B' are unities is to state a general principle applying to all ultimate realities and at the same time to state a truth applying analogously to each different ultimate reality. The limitation of rationalism is that the diversity of things makes it difficult to discover identities amid diversity in intuitive experience.³⁷

The Second Criterion

The second criterion by which a belief should be tested is the clarity of its propositional content. It is Whitehead's view that this criterion is an ideal which man never fulfills completely. In the first place, language never fully expresses intuition; man's understanding of experience needs more than the ordinary usages of words.³⁸ In this sense, philosophy and poetry are similar, explains Whitehead: ". . . philosophy is mystical. For mysticism is direct insight into depths as yet unspoken. But the purpose of philosophy is to rationalize mysticism: not by

37 MT, pp. 133-134.

38 MT, p. 68; PR, pp. 17-20.

explaining it away, but by the introduction of novel verbal characterizations, rationally coordinated."³⁹ Because language never fully expresses intuition, the Fallacy of the Perfect Dictionary must be avoided. This is the belief "that mankind has consciously entertained all the fundamental ideas which are applicable to its experience. Further it is held that human language, in single words or in phrases, explicitly expresses these ideas."⁴⁰ In accord with these reflections, Whitehead maintains that the expression of an intuition in a proposition does not yield perfect clarity.

Another difficulty with the fulfilment of the criterion of clarity of propositional content is that "apart from a complete metaphysical understanding of the universe, it is very difficult to understand any proposition clearly and distinctly, so far as concerns the analysis of its component elements."⁴¹ Since a proposition has meaning about a reality interconnected with the universe, the proposition cannot be perfectly clear and distinct unless this background is completely understood in its important elements, that is, in its metaphysical elements.⁴² Human language

³⁹ MT, p. 235.

⁴⁰ MT, p. 235.

⁴¹ FR, p. 68.

⁴² PR, pp. 16-17.

obscures the connections of things since "single words, each with its dictionary meaning, and single sentences, each bounded by full stops, suggest the possibility of complete abstraction from any environment."⁴³

However, such a suggestion is erroneous. Any reality in the universe essentially presupposes in its reality connections with the other realities in the universe. Internal understanding should be used to conceptualize how the universe's realities are factors in the unified outcome of a given reality, and external understanding should be used to conceptualize how this given reality can causally affect the universe. Since any proposition about a reality presupposes perfect internal and external understanding, the proposition is never perfectly understood. For perfect internal and external understanding are ideals that man's finite intelligence can only strive to attain.⁴⁴

The Third and Fourth Criteria

The third and fourth criteria for testing the content of a belief are internal logical consistency and external logical consistency. The difficulty with fulfilling these criteria follows from the reflections about the ambiguity of the propositional

⁴³ MT, p. 90.

⁴⁴ MT, pp. 12-13, 90-91.

content. If the analysis of a proposition always leaves some ambiguity of meaning in reference to the rest of the universe, it is always possible that the proposition is either not self-consistent or not externally consistent with other propositions already accepted as true.⁴⁵

If the first two criteria, conformity to intuitive experience and clarity of propositional content, were capable of easy determination, the remaining criteria would not be needed. Also if the first four criteria could be definitely fulfilled, then the fifth criterion would not be needed. Accordingly, the fifth criterion is needed to make up for the difficulties in fulfilling the first four criteria.⁴⁶

The Fifth Criterion

The fifth criterion is a belief should fit into the status of a logical scheme with (a) widespread conformity to experience, (b) no discordance with experience, (c) coherence among its categorial notions, and (d) methodological consequences. This criterion helps to remedy the difficulties involved in fulfilling the first four criteria.

A scheme of ideas stated in propositions which are 'log-

⁴⁵ FR, p. 69.

⁴⁶ FR, p. 69.

ical' helps the fulfilment of the third and fourth criteria of internal and external logical consistency. For by a 'logical scheme' of ideas, Whitehead means that the propositions are logically consistent, that is, that they lack contradiction internally and externally, that the general ideas are defined in technical terms, and that the scheme of propositions is in accord with the principles of logical inference.⁴⁷

A logical scheme of ideas with 'coherence among its categoreal notions' also helps to fulfill the third and fourth criteria. "'Coherence,' as here employed, means that the fundamental ideas, in terms of which the scheme is developed, presuppose each other so that in isolation they are meaningless."⁴⁸ The essential interconnectedness of realities in process in the universe requires that the fundamental notions about these interconnected realities be themselves interconnected. No idea about the essential interconnectedness of realities in process can apply to the world if it is isolated from other ideas.⁴⁹ Such isolation is incoherence, the arbitrary disconnection of first principles.⁵⁰ No rational defense can be given for incoherence. For a rational

⁴⁷ PR, p. 5.

⁴⁸ PR, p. 5.

⁴⁹ Leclerc, Whitehead's Metaphysics, p. 37.

⁵⁰ PR, p. 9.

explanation cannot make coherent or connected that which is supposedly absolutely incoherent, absolutely disconnected, absolutely isolated. Incoherence is a form of irrationalism; consequently, Whitehead's rationalism rejects incoherence in his attempt to discover the general rational (coherently connected) principles that all particular actualities exemplify. The acceptance of the function of speculative reason is simultaneously the acceptance of coherence, the rejection of incoherence. Therefore, the construction of a logical scheme of ideas with 'coherence among its categoreal notions' should help to fulfill the third and fourth criteria of internal and external logical consistency. The 'coherence' of categoreal notions requires internal and external logical consistency. For what is undefined or unexplained in one idea of an actual entity receives explanation from the other ideas which are of equal generality with the first idea, that is, from the other ideas which also apply to the actual entity.⁵¹ Metaphysical

⁵¹ MT, p. 1: "There are no definitions of such [metaphysical] notions. They are incapable of analysis in terms of factors more far-reaching than themselves. [Accordingly] each must be displayed as necessary to the various meanings of groups of notions, of equal depth with itself." Cf. AI, p. 304: "Thus to arrive at the philosophical generalization which is the notion of a final actuality conceived in the guise of a generalization of an act of experience, an apparent redundancy of terms is required. The words correct each other. We require 'together', 'creativity', 'concrescence', 'prehension', 'feeling', 'subjective form', 'data', 'actuality', 'becoming', 'process'."

propositions will have internal and external logical consistency since 'coherence' requires that the scheme of categoreal notions exhibit their interconnections very clearly.

The 'logical scheme of coherent categoreal notions' helps to fulfill the second criterion of clarity of propositional content since the scheme provides the background within which any proposition should have meaning.⁵² Finally, the verification of this scheme by 'widespread conformity to experience' and 'no discordance with experience' helps to fulfill the first criterion of conformity to intuitive experience. For the direct verification of some ideas in the categoreal scheme is the indirect verification of the other ideas coherent with the verified ideas.⁵³ Whitehead emphasizes that the verification of the scheme must be in those factors in experience which are 'stable.' This means that the intuition giving verification should not be confined to a few special people or a few special occasions. The first discernment may be due to an exceptional man in an exceptional moment, but later discernments should be available to other people at other moments.⁵⁴

In seeking verification in the 'stable' factors of human

52 FR. p. 70.

53 FR. p. 69.

54 FR. pp. 77-78.

experience, speculative philosophy should especially attend to the evidence disclosed in the welter of established institutions constituting the structures of human society throughout the ages. What those institutions presuppose and express represents important, enduring facts of experience. It is a commonplace that men disagree about practically everything, but the basis of every discord is some common experience, discordantly interpreted. One example is that the discordance over moral codes gives witness to the fact of moral experience. Another example is that although men create different institutions for different purposes, the very fact of institutions to effect purposes gives witness to the unquestioned belief that foresight and purpose can shape the attainment of ends.⁵⁵

The verification of the scheme of categoreal notions in the institutions of man shows how the scheme of ideas has 'methodological consequences.'⁵⁶ This is the best verification possible in that the scheme of categoreal notions "issues in the establishment of a practical technique for well-attested ends, and that the speculative system maintains itself as the elucidation of that technique."⁵⁷ The scheme of categoreal notions thereby gains the

55 FR, pp. 85-86.

56 FR, p. 43.

57 FR, pp. 80-81; in accord with this text, Whitehead says that "metaphysics is nothing but the description of the gen-

character of generating ideas coherent with itself and of receiving continuous verification.⁵⁸ This interplay of thought and practice, the progress from thought to practice and the regress from practice to thought, is the supreme authority. This interplay of thought and practice is the test to which speculative reason must submit its intuitions and generalizations.⁵⁹

Another required verification of the scheme of categorial notions is that speculative philosophy should make the various sciences and their interrelations intelligible. As Christian comments, Whitehead's speculative philosophy is meant to be both relevant to and consistent with well-founded scientific theories. If the categorial scheme is incapable of interpreting a well-founded scientific theory, then the scheme is in that respect inadequate and not verified.⁶⁰ Leclerc explains how Whitehead connects speculative philosophy (metaphysics) with the various sciences through the discipline entitled cosmology. Cosmology "is the effort to frame a scheme of the general character of the present stage of the universe," whereas metaphysics is the effort

eralities which apply to all the details of practice." FR, p. 19.

58 FR, pp. 69-70.

59 FR, pp. 80-81.

60 FR, p. 76.

to frame of the general character of all possible stages of the universe.⁶¹ Metaphysics as such is not directly relevant to the sciences; what the sciences require for a philosophical interpretation is an application of the categoreal notions, an interpretation of the universe as it is at present in terms of a metaphysical scheme of ideas. This interpretation is cosmology. Since philosophy of science is not possible without metaphysics as the basis from which science is interpreted, philosophy of science should be recognized as cosmology, not as a discipline that can be done without metaphysical presuppositions. Consequently, cosmology takes the place of the philosophy of science in Whitehead's publications of his second period.⁶²

In Whitehead's view, metaphysics, cosmology, the schemes of the sciences both natural and social, the sociological structure of technical methods and of institutions, and the whole of man's experience, including its aesthetic, moral, and religious aspects, are all mutually critics of each other. Reason intervenes in the capacity of arbiter by a further exercise of speculation, and all the elements of man's life, including the schemes of the sciences, cosmology, and metaphysics, are mutually modified. The joint discipline of this mutual modification eliminates errors

61 Leclerc, op. cit., p. 225.

62 Ibid.

from the speculations of reason.⁶³ "The purposes of mankind receive the consequential modification, and the shock is transmitted through the whole sociological structure of technical methods and of institutions."⁶⁴ This interplay of thought and practice is the supreme authority, the test by which the errors of speculative reason are eliminated.

However, this supreme authority fails to be final for two reasons. First, the evidence always remains confused, ambiguous, and even contradictory. Secondly, if speculative reason had ever accepted any speculations as finally and absolutely verified in this supreme authority of the interplay of thought and practice, all progress in history would have been stopped.⁶⁵ "The horrid practices of the past, brutish and nasty, would have been fastened upon us for all ages."⁶⁶ Man should not accept that the practices of the present age are the final standard for all times. Whitehead insists on the necessity of speculation even though it

63 FR, pp. 76-77, 86-87; PR, p. vi; cf. FR, pp. 82-85, where Whitehead points out that the Greeks (Plato and Aristotle) made speculation effective by (1) being unboundedly curious, (2) striving for coherent systems, (3) having interest in every field worthy of human endeavor, (4) seeking truths of the highest generality, and (5) having practical interests.

64 FR, p. 87.

65 FR, p. 81.

66 FR, p. 81.

does not yield practical benefits nor have immediate verification in facts and practice. Abstract speculation gave European science its foundation long before the sciences came into being. Consequently, Whitehead argues, to set limits to speculation is treason to the future.⁶⁷ In fulfilling the art of life, it is true that man lives and lives well, but he still feels the urge to live better.⁶⁸

Consequently, no matter how well confirmed the categorical scheme may become, it must always remain a working hypothesis. Speculative philosophy must embody the method of the working hypothesis, since its first principles are reformable. Its first principles are the very points which speculative reason is trying to know.⁶⁹ Speculative reason must avoid the dogmatic fallacy, the belief that the principles of its working hypothesis are clear, obvious, and irreformable.⁷⁰ If philosophy be based upon clear and distinct ideas, then the discord of philosophers, competent and sincere men, implies that the function of speculative reason is a "will-o'-the-wisp. But as soon as the true function of rationalism is understood, that it is a gradual approach to ideas

67 FR, pp. 71-76.

68 FR, p. 81.

69 AI, p. 286; Leclerc, op. cit., p. 48.

70 AI, p. 287.

of clarity and generality, the discord is what may be expected."⁷¹

In accord with the reflections on these five criteria of the Greek logic of discovery, as perfected by the experience of centuries of speculation, Whitehead defines speculative philosophy and describes its method.

C. Speculative Philosophy as the Function of Speculative Reason

The discipline in which speculative reason attempts to fulfill its function is speculative philosophy:

Speculative Philosophy is the endeavour to frame a coherent, logical, necessary system of general ideas in terms of which every element of our experience can be interpreted. . . . Thus the philosophical scheme should be coherent, logical, and in respect to its interpretation, applicable and adequate. Here 'applicable' means that some items of experience are thus interpretable, and 'adequate' means that there are no items incapable of such interpretation.⁷²

In this definition, the various reflections of Whitehead on the five criteria of the Greek logic of discovery can be discerned. First, in saying that speculative philosophy is the endeavour to frame . . . , he is pointing out that the activity of seeking first principles, the general ideas, is reason in its basic form. In its basic form, reason is not deductive reason but speculative reason which uses the method of the working hypothe-

71 FR, pp. 87-88.

72 PR, p. 4; cf. AI, p. 285.

sis.⁷³ Speculative philosophy is never a finished fact but something which man will always endeavour to do in attempting to fulfill the function of speculative reason.

Secondly, in saying that the philosophical scheme should be coherent and logical, Whitehead is referring to the fifth criterion. This criterion requires that speculative reason should construct a logical scheme with coherence among its categoreal notions. The scheme of general ideas is logical in so far as its propositions are internally and externally consistent, in so far as its general ideas are defined in technical (categoreal) notions, and in so far as the scheme of propositions is in accord with the principles of logical inference. The scheme of general ideas is coherent in so far as the ideas of an actual entity connected with the universe of actual entities are not arbitrarily disconnected but rather presuppose each other so that in isolation they are meaningless. What one idea of an actual entity presupposes and leaves unexpressed will be expressed in the other ideas which also apply to it.

Thirdly, in saying that the philosophical scheme should be applicable and adequate in its interpretation of every element of experience, Whitehead is again referring to the fifth criterion. This criterion requires that the scheme of ideas have both

73 Leclerc, op. cit., pp. 41-42.

widespread conformity to experience and no discordance with experience. Applicability means widespread conformity to, and adequacy means no discordance with, experience.

The definition of speculative philosophy has both a rational side, expressed by the terms coherent and logical, and an empirical side, expressed by the terms applicable and adequate. Whitehead explains how these two sides are bound together by showing how an adequate scheme must be a necessary one: The adequacy of the scheme for the interpretation of experience does not mean only adequacy for such experience as happen to have been considered. It means that all human experience is such that the items disclosed in this awareness must be interpretable by the scheme. Consequently, the scheme is necessary in the sense that all experience as such is interpretable by the scheme. Provided that man limits his speculative understanding to that which communicates with immediate matter of fact disclosed in his experience, the scheme will necessarily be applicable for the interpretation of any matter of fact. For what does not communicate with immediate matter of fact disclosed in awareness and experience is unknowable, and the unknowable is simply unknown.⁷⁴ The scheme of philosophic ideas is necessarily true in that it is adequate for the interpretation of all matters of fact disclosed in experience.

74 PR, pp. 5-6.

"This doctrine of necessity in universality means that there is an essence to the universe which forbids relationships beyond itself, as a violation of its rationality. Speculative philosophy seeks that essence."⁷⁵

The key terms in Whitehead's definition of speculative philosophy have been considered; his definition may be restated as the function of speculative reason: Speculative reason's function is to seek to frame a coherent, logical, necessary system of general ideas which makes intelligible every element of experience by being applicable to it and adequate for the interpretation of any experience. These characteristics of metaphysical ideas, namely that they are completely universal or necessary, forming a system which is coherent, logical, applicable, and adequate, constitute the requirements which a metaphysical system has to fulfill.⁷⁶ It is in terms of these requirements, as summarized in the fifth criterion of the Greek logic of discovery, that Whitehead proposes the method of the working hypothesis for speculative philosophy.

D. The Method of Speculative Philosophy

Relying on his knowledge of the history of speculative

⁷⁵ PR, p. 6.

⁷⁶ Leclerc, op. cit., p. 39.

reason, Whitehead adopts the method of the working hypothesis for speculative philosophy by asserting that progress in speculative understanding has been achieved "by the complex process of generalizing from particular topics, of imaginatively schematizing the generalization, and finally by renewed comparison of the imagined scheme with the direct experience to which it should apply."⁷⁷

Whitehead is relying on his exposition of the fifth criterion of the Greek logic of discovery: any belief should fit into a logical scheme with (a) widespread conformity to experience, (b) no discordance with experience, (c) coherence among its categorical notions, and (d) methodological consequences. This criterion implies all that was stated in the above text. It implies that a logical scheme of ideas has been constructed by generalizing from particular topics and imaginatively schematizing the generalizations into coherence. The fifth criterion also requires verification of the scheme through widespread conformity to experience, no discordance with experience, and methodological consequences such as making intelligible the theories and discoveries of the sciences.

Accordingly, Whitehead proposes that speculative reason use the following three step method which he compares to the flight of an airplane. (1) Reason starts from the ground of par-

77 PR, p. 24.

ticular observation. (2) Reason makes a flight in the thin air of imaginative generalization and schematization of this generalization with other generalizations. (3) Reason lands for renewed observation rendered acute by rational interpretation.⁷⁸ This method does not seem complex, but its actual use is very complex because the three steps must be repeated over and over in the attempt to discover all the metaphysical first principles which make intelligible all particular facts. A further difficulty in the use of the method is that imaginative generalization of the correct metaphysical first principles must require a genius of the rank of Plato, Aristotle, Newton, and Einstein. Once such a genius has shown the way, it is possible for other men to grasp their insights and follow their reasonings. An explanation of the three step method needs to be given.

First Stage of the Method

Reason starts from the ground of particular observation. Whitehead explains that the only point of departure available for speculative thought is immediate experience which discloses to man the actual world, including man himself. He also insists that thought which is not for the sake of elucidation of experience is useless and unjustified thought.⁷⁹ In appealing to experience for

78 PR, p. 7.

79 PR, p. 6.

the discovery of the necessary features of reality, Whitehead is consistent with his ontological principle. According to this principle, the ultimate reasons (the metaphysical first principles or necessary features of reality) are only to be discovered in the composite nature of definite actual entities. Since the actual entities themselves must embody those necessary features, man must seek those features in his experience of those actualities.⁸⁰

In seeking these necessary features in experience, man can only appeal to direct insight--to what Descartes termed In-spectio.⁸¹ Leclerc points out that this direct insight is not some separate and superior form of knowledge since it "is but a phase in one whole constituting the method of the working hypothesis, the method by which, in the final analysis, all conceptual knowledge is attained."⁸² These direct insights are formulable into what Christian calls pre-systematic statements, "statements of facts Whitehead means to take account of and do justice to in his speculative construction."⁸³ Examples of such statements are: "All things flow. . . . There are many things. Things are

80 Leclerc, op. cit., pp. 27-28, 43.

81 MT, p. 103.

82 Leclerc, op. cit., p. 46.

83 Christian, "Some Uses of Reason," Relevance of Whitehead, ed. Leclerc, p. 74.

interconnected. Aims are effective. . . . The primitive experience is emotional feeling, felt in relevance to a world beyond."⁸⁴ These statements may be characterized as having their terms taken from ordinary usage, science, religion, or traditional philosophy. Neither the logical subjects nor the predicates of these statements are expressed by terms taken from Whitehead's categoreal scheme. The terms of these statements are non-systematic.⁸⁵

Second Stage of the Method

The second step of the method is that reason imaginatively generalizes from the particular observation and schematizes this generalization with other generalizations. This generalization and schematization creates Whitehead's categoreal scheme, a logical scheme of coherent ideas formulated in technical or systematic terms and statements.⁸⁶ Systematic statements are statements of relationships within the scheme in which all the terms of the statements, both logical subjects and predicates, are derived from the categoreal scheme, such as the statement, for example, "Every actual entity is present in every other actual entity."⁸⁷

Imaginative generalization from particular observation

⁸⁴ Ibid.

⁸⁵ Ibid.

⁸⁶ Cf. PR, pp. 27-45, where Whitehead gives a concise statement of his categoreal scheme.

⁸⁷ Christian, loc. cit.

is termed "imaginative rationalization," "imaginative construction," and "'philosophic generalization;'" Whitehead explains this last term as "'the utilization of specific notions, applying to a restricted group of facts, for the divination of the generic notions which apply to all facts.'"⁸⁸ Christian comments that this imaginative construction may be viewed as creating systematic statements as analytic statements. The truth of any particular systematic statement does not strictly depend on or follow from the truth of any pre-systematic statements.⁸⁹ Since there can be no indubitable immediate assurance of the correctness of direct insight and its imaginative generalization, the imaginative generalization must be taken as an hypothesis and subjected to a careful and elaborate procedure of verification.⁹⁰

Since the imaginative generalization does not strictly follow from any pre-systematic statement, the problem arises how direct insights are to be generalized. In one sense, it is impossible to point out the positive connection between the insight and its generalization without examining each case, since the generalization is unique each time it is done by the philosopher. But in another sense, the general character of the positive con-

88 PR, pp. 7-8.

89 Christian, "Some Uses of Reason," op. cit., pp. 75-76.

90 Leclerc, Whitehead's Metaphysics, p. 48.

nection between a direct insight and its generalization is analogy. The procedure of Whitehead's rationalism is the discussion of analogy, the discovery of identities amid diversity. An illustration of Whitehead's method is his generalization from the direct insight into human freedom to the notion of creativity (novelty), a notion that might be applicable to the novelty of man's action and of any actuality in an analogous way.⁹¹

Christian's emphasis upon imaginative generalization as construction tends to give the impression that Whitehead's categorical scheme is simply a construction without any basis in experience. This would be, however, a mistaken impression. The categorical notions and statements are generalized by analogy from particular insights into experience. Still, Christian's main point, that systematic statements are not directly about the world, but rather analytical statements about relationships within the categorical scheme, is correct.⁹² Because systematic notions

91 Dewey, "Whitehead's Philosophy," Philosophical Review, XLVI, no. 2 (Jan., 1937) pp. 171-172, and Hartshorne, "Whitehead, the Anglo-American Philosopher-Scientist," Proceedings of American Catholic Philosophical Association, 1961, pp. 163-171, both point out specific examples of how Whitehead could have imaginatively generalized by analogy some direct insights from man's experience of himself into metaphysical categories.

92 Christian, loc. cit., "The entities listed in his categories of existence are not intuited--though they may well have been suggested by elements in experience--or deduced; they are constructed."

are constructed, it follows that categories are what Whitehead defines them to be.

Two kinds of problems might be raised about the categorical scheme, the problem of its own logical consistency and coherence and the problem of its applicability to and adequacy for the interpretation of reality. In order to prevent such problems from arising, two conditions should be followed for the success of the imaginative construction. First, the construction should have its origin in a generalization of a particular factor discerned in a direct insight from such experiences as physical science, physiology, psychology, aesthetics, ethics, languages, or sociology.⁹³ Such generalizations can only be made at an advanced stage of thought upon the basis of antecedent analysis involved in more special fields of knowledge.⁹⁴ The fulfilment of this first condition ensures that the generalization will have an application to experience, at least to that aspect of experience from which the generalization was derived.

The second condition for the success of imaginative construction is that the two rationalistic ideals of coherence and logical perfection should be pursued. The requirement of coherence is more important than the requirement of logical consistency.

93 PR, p. 7.

94 Leclerc, op. cit., p. 46.

oy, since the history of philosophy shows that systems of philosophy are not refuted but rather abandoned. The reason for this is that logical contradictions are usually only temporary slips of the mind. After a first criticism, a system's logical inconsistencies may be able to be corrected. However, a system's incoherences may be discoverable only through a very thorough second criticism. For example, Descartes' philosophy was not refuted because of its logical inconsistencies but rather abandoned because of its incoherence, its arbitrary disconnection of first principles. His two kinds of substance, corporeal and mental, illustrate incoherence.⁹⁵ For according to Descartes, a substantial individual 'requires nothing but itself in order to exist,' his two kinds of substance are arbitrarily disconnected, neither one requiring the other for its being. The attraction of Spinoza's philosophy is that it modifies Descartes' position into greater

⁹⁵ PR, pp. 8-9; Leclerc, op. cit., p. 48, points out that Whitehead holds that Descartes' insight into the cogito and point of departure from the subject's own experience are correct but that Descartes' generalizations from these insights were not successful. Descartes committed the fallacy of misplaced concreteness in holding extension as such to be a metaphysical character of actual entities. Although he achieved the useful concept of extension as such, his mistake was to neglect the degree of abstraction involved when considering how this notion applied to actual entities. Accordingly, Whitehead proposes that the success of speculative reason is to be measured by its concreteness. SMW, pp. 84-85; PR, p. 11.

coherence, offering a one-substance world with different attributes and modes.⁹⁶ In so offering only a one-substance world, Spinoza is using Occam's razor, namely, that entities are not to be multiplied beyond necessity. Now the way in which the explanatory notions are not multiplied beyond necessity is to give each metaphysical notion the widest extension of which it seems capable. It is only in this way that the correct adjustment and coherence of ideas can be explored. Accordingly, the rationalistic ideal, coherence, suggests Whitehead, is another way of stating Occam's doctrine of parsimony, namely, that the scope of a metaphysical principle should not be limited otherwise than by the necessity of its own meaning.⁹⁷ If a metaphysical notion does not have the widest possible extension consistent with its comprehension, there will be incoherences in the metaphysical scheme. For the notion in question should apply according to its meaning but the scheme does not make it do so.

When the categoreal scheme has been constructed and stated with the utmost precision and definiteness, the philosopher should then argue from it boldly and with the constructive power of deductive logic. The propositions derived from the categoreal scheme should then be confronted with the circumstances of ex-

96 PR, p. 10.

97 AI, pp. 304-305.

perience to which they should apply.⁹⁸

Third Stage of the Method

In this step of the method, the primary advantage gained by observing in terms of the imaginatively constructed scheme is that experience is not interrogated with the benumbing repression of common sense. Common sense observes by the method of difference: sometimes men see an elephant and other times not. The result is that an elephant is noticed when it is present because of the difference it makes. But the metaphysical first principles are always exemplified, whatever the experience may be. Accordingly, it is a mistake to expect simple accumulations and systematizations of experience in terms of itself to reveal the metaphysical factors.⁹⁹ This was the mistake in "the Baconian method of induction, a method which, if consistently pursued, would have left science where it found it. What Bacon omitted was the play of a free imagination, controlled by the requirements of coherence and logic."¹⁰⁰

When observation by the method of difference fails to reveal factors which are always present in experience, these may yet be observable under the influence of an imaginatively con-

98 PR, p. 13; FR, p. 71.

99 PR, pp. 6-7, 13.

100 PR, p. 7.

structured scheme. Scientific and philosophic generalities are not discoverable by simple accumulation and systematization of observations, but only by observation directed by theory.¹⁰¹ Without some theory presupposed as a working hypothesis, "it is impossible to know what to look for, and how to connect the sporadic observations."¹⁰² The explicit statement of the categoreal scheme as a working hypothesis intelligently directs observation and decides upon the mutual relevance of various types of evidence so that the working hypothesis is capable of meaningful verification.¹⁰³

A proposition or conclusion derived from the categoreal scheme has three possibilities in confronting experience: "(i) the conclusion may agree with the observed facts; (ii) the conclusion may exhibit general agreement, with disagreement in detail; (iii) the conclusion may be in complete disagreement with the facts."¹⁰⁴ In the first case, the categoreal scheme is shown to make facts of experience intelligible. In the second case, evaluation both of the observation of facts and of the categoreal scheme is required. This history of thought shows that false interpretations can be read into the observation of facts. In the

101 Leclerc, op. cit., p. 45.

102 AI, p. 284.

103 AI, p. 286.

104 PR, p. 13.

third case, either the categoreal scheme must be limited to a special field and not be applied to all fields of experience, or the main categories must be abandoned.¹⁰⁵ The successful philosophic generalization is confirmed in every field of human experience and especially in religion, science, both natural and sociological, and the wide self-evidence of civilization.¹⁰⁶ In seeking such confirmation of its working hypothesis, speculative reason performs the useful function of promoting the most general systematization of civilized thought.¹⁰⁷ Speculative reason thereby maintains an active novelty of fundamental ideas illuminating the actions of man in civilization.¹⁰⁸

Christian warns that the verification of the categoreal scheme is not the simple matter of finding perceptually isolable components in experience which illustrate Whitehead's categories of existence such as actual entities and nexūs. In seeing a table, man is not seeing actual entities. Whitehead can say that in seeing a table a man is looking at a nexus of actual entities. But such a statement is a post-systematic interpretation of experience. Man does not experience the 'fact' that the table is a

105 PR, p. 13.

106 PR, p. 23; MT, p. 145; AI, pp. 307-381.

107 PR, pp. 25-26.

108 MT, p. 237.

nexus of actual entities; rather he interprets the table as a nexus of actual entities. Post-systematic statements are not straight-forward descriptions of what is experienced.¹⁰⁹ Rather, post-systematic statements are "statements in which facts and principles of various sorts are interpreted in terms of the categoreal scheme, for example: The finite things that endure through time are not actual entities but nexūs of actual entities."¹¹⁰

Whitehead uses systematic terms to interpret non-systematic terms: "perception facts, scientific facts, moral facts, and others are framed in terms of the categoreal scheme."¹¹¹

In summary, Leclerc and Christian have correctly emphasized the inductive aspect of Whitehead's method. Pre-systematic statements of self-evidences are made in the first step of the method. However, such direct insights are self-evident only from the perspective reason takes, that is, only because reason ignores other aspects of experience. Consequently, direct insight is not a superior form of knowledge but one aspect in the whole constituting the method of the working hypothesis. In the second step of the method, generalizations and systematizations are made from the direct insights by analogy. A categoreal scheme of systematic

109 Christian, "Some Uses of Reason," op. cit., pp. 76-77.

110 Ibid., pp. 75-76.

111 Ibid., p. 76.

terms and definitions is constructed to fulfill the requirements of logical consistency and coherence. These systematic statements are constructed as analytically true in terms of the relationships of the categoreal scheme itself. The truth of any particular systematic statement does not strictly depend on or follow from the truth of any pre-systematic statements. Since there can be no indubitable immediate assurance of the correctness of direct insight and its imaginative generalization, the categoreal scheme must be taken as an hypothesis and subjected to verification tests. In the third step of the method, the categoreal scheme is tested as to its applicability to and adequacy for the understanding of all aspects of man's experience. Systematic terms and statements are used to make intelligible, post-systematic statements about, for example, scientific facts, moral facts, perception facts, aesthetic experiences, and religious experience.

In this chapter, the function of speculative reason has been identified in a discussion of reason and evolution. Since Whitehead admits the category of final causality, as explanatory of emergent evolution, he defines the primary function of reason to be: (i) to constitute final causes, that is, to live; (ii) to emphasize final causes, that is, to live well; and (iii) to criticize final causes, that is, to live better. The function of practical reason is to achieve a purpose exterior to the satisfaction of reason itself, whereas the function of speculative reason is to

satisfy its own purpose of understanding everything in terms of principles intelligible to itself. The Greek logic of discovery provides a set of five criteria by which any speculative understanding of reality should be tested. It was in terms of these criteria that Whitehead defined speculative philosophy and its method for the fulfilment of the function of speculative reason. Speculative philosophy seeks to frame a coherent, logical, necessary system of general ideas which makes intelligible every element of experience. Speculative philosophy uses the method of the working hypothesis in order to fulfill the five criteria of the Greek logic of discovery. Although direct insight is the point of departure for reason's speculations, it is not a superior form of knowledge but one aspect in the whole constituting the method of the working hypothesis. The direct insight must be capable of being stated in systematic terms in order that it will fit in with and be verified by all of man's experience and knowledge.

In light of the exact definition of speculative philosophy and its method, the next chapter will consider what evidence rational religion and the religious intuition as the sense of Deity can offer for Whitehead's assumption of the function of speculative reason.

CHAPTER II

THE FUNCTION OF SPECULATIVE REASON CONSIDERED IN LIGHT OF RATIONAL RELIGION AND THE RELIGIOUS INTUITION AS THE SENSE OF DEITY

The purpose of this chapter is to consider how the function of speculative reason is defended by rational religion and the religious intuition as the sense of Deity. The first section indicates that Whitehead pointed to a significant relationship between religion and the function of speculative reason. The second section describes Whitehead's view of rational religion, the religious intuition, and its interpretation in his metaphysics. This second section serves as the context for the third section where the Modes of Thought sense of Deity is described as an evidence independent of his systematization of it. Next the fourth section considers how rational religion and the sense of Deity can serve as defenses of the function of speculative reason. Finally, the fifth section compares this chapter with other investigations of Whitehead, especially Tillich's and Hartshorne's.

A. Speculative Reason and Religion

In Modes of Thought, in the lectures describing the

sense of Deity, Whitehead also views his philosophy as a pragmatism. "Pragmatism is simply an appeal to that self-evidence which sustains itself in civilized experience. Thus pragmatism ultimately appeals to the wide self-evidence of civilization, and to the self-evidence of what we mean by 'civilization'."¹ Whitehead will exclude by dogmatic denial no self-evidence in his pragmatism. Despite the selective limitations of human consciousness, there is no reason, apart from dogmatic assumption, why human consciousness could not have an intuition into some metaphysical factor of the universe.² Such an intuition would be an awareness of a self-evidence of civilization. The evidence could not be denied without a denial of that aspect of civilization which is a necessary part of civilized experience. Consequently, such an evidence could not be denied without self-contradiction.

Whitehead indicates that there is a self-evidence of civilization which may serve as a basis for assuming the function of speculative reason. There is a strong moral intuition that one of the ultimate elements in the good life of civilization is speculative understanding for its own sake. This intuition is not as widespread as other moral feelings are, but in the history of civ-

1 MT, pp. 144-145.

2 Whitehead, "Remarks," The Philosophical Review, XLVI, no. 2 (Jan., 1937) p. 181.

ilization it has been transmitted by outstanding individuals.³ Such geniuses as Plato, Aristotle, Archimedes, and Roger Bacon have lived their lives of reflection according to the function of speculative reason that all things are conceivable as exemplifications of general principles.⁴ For both primitive man and the primitive side of civilized man, "the universe is not so much unfathomable as unfathomed--by this I mean indiscriminated, unanalyzed. . . . The very presuppositions of a coherent rationalism are absent. Such a rationalism presupposes a complex of definite facts whose interconnections are sought."⁵ For primitive man and the primitive side of civilized man, the universe is not such a complex of interconnected facts that stimulates man to analyze and discriminate the connections. Rather, the universe is an obscure background shot across by isolated, vivid effects charged with emotional excitements.⁶ Consequently, what is necessary for the moral intuition of the function of speculative reason is an insight into the presuppositions of a coherent rationalism. What is needed is an awareness of the evidence of the universe as a complex of interconnected facts that stimulates man to analyze and

3 FR, pp. 38-39.

4 FR, p. 37; SMW, p. 7.

5 RM, p. 24.

6 RM, p. 24.

identify the connections.

Whitehead indicates that this self-evident intuition of the universe which is the presupposition of his coherent rationalism is to be found in religious intuition:

That we fail to find in experience any elements intrinsically incapable of exhibition as examples of general theory, is the hope of rationalism. This hope is not a metaphysical premise. It is the faith which forms the motive for the pursuit of all sciences alike, including metaphysics.

In so far as metaphysics enables us to apprehend the rationality of things, the claim is justified. It is always open to us, having regard to the imperfections of all metaphysical systems, to lose hope at the exact point where we find ourselves. The preservation of such faith must depend on an ultimate moral intuition into the nature of intellectual action--that it should embody the adventure of hope. Such an intuition marks the point where metaphysics--and indeed every science--gains assurance from religion and passes over into religion.⁷

Whitehead has stated the function of speculative reason, the hope, faith, and ideal of rationalism. The function of speculative reason "is to pierce into the general reasons beyond limited reasons."⁸ This ideal forms the motive for the pursuit of all the sciences, especially metaphysics. In so far as metaphysics enables man to apprehend the rationality of things, the ideal is justified. Although man falls short of the perfect metaphysics, he should not give up the ideal. It is part of the nature of intellectual action, in fact, of all civilized action, that it

7 PR, p. 67.

8 FR, p. 65.

should embody the adventure of hope; for civilization is in decay when its action is without adventure, without the striving for the unattainable ideal.⁹ The ideal of intellectual speculation is an "infinite ideal . . . never to be attained by the bounded intelligence of mankind."¹⁰ Yet this ideal essentially belongs to man. Man as man, as civilized man, cannot but have a tendency to fulfill this ideal of speculative reason, to know the ultimate reasons of all facts, their origin and their end.¹¹ The self-evidence supporting this ideal is to be found in "the deep connection of the speculative Reason with religious intuitions."¹²

B. Rational Religion and The Religious Intuition

Since Whitehead has indicated that the self-evidence for the function of speculative reason is to be found in religion, it is necessary to describe his notion of rational religion and the religious intuition prior to the examination of their relevance to the function of speculative reason.

In order to explain the nature of religious truth, Whitehead distinguishes between religious truth and mathematical truth. One uses arithmetic, but he is religious. What one be-

9 AI, p. 360.

10 FR, p. 65.

11 FR, p. 65.

12 FR, p. 66.

believes as mathematical truth has no influence upon his moral character, but what one believes as religious truth should have an influence upon his moral character. A religious truth should justify a person by cleansing his character of faults and by developing his character towards the religious ideal of perfection. Consequently, a religion may be defined as a system of general truths which transform character when these truths are sincerely held and vividly apprehended.¹³

This notion of religion emphasizes "the awful ultimate fact, which is the human being, consciously alone with itself, for its own sake."¹⁴ Consequently this notion of religion directly contradicts "the theory that religion is primarily a social fact."¹⁵ Social facts are important to religion since there is no absolute abstraction of an individual from his environment. However, society cannot be absolutely abstracted from the individual men who compose society. Religion is primarily what the individual does with his solitariness. What should develop from religion

13 RM, p. 15: "You use arithmetic, but you are religious. . . . No one is invariably 'justified' by his faith in the multiplication table. But in some sense or other, justification is the basis of all religion. Your character is developed according to your faith. This is the primary religious truth from which no one can escape."

14 RM, p. 16.

15 RM, p. 16.

is individual worth of character.¹⁶

The emergence of religion in human history shows four factors: ritual, emotion, belief, and rationalization.¹⁷ Ritual and emotion predominate in primitive religion which is primarily social in that the individual cannot give up the cult of the tribe without giving up his identity as a member of the tribe.¹⁸ The last two factors, belief and especially rationalization, predominate in civilized religion and emphasize solitariness as constituting the heart of religious importance. "The great religious conceptions which haunt the imaginations of civilized mankind are scenes of solitariness: Prometheus chained to his rock, . . . the meditations of the Buddha, the solitary Man on the Cross."¹⁹

The purpose of ritual and emotion is explained in a myth. If the myth is about a person, real or imaginary, the ritual is the primitive worship of the hero-person. The myth then serves as a religious belief, and the belief encourages speculation about itself. Just as ritual encourages emotion for its own sake beyond the mere response to practical necessities, so also religious belief encourages thought for its own sake, since the

16 RM, pp. 16-17.

17 RM, p. 18.

18 RM, pp. 19, 28.

19 RM, pp. 19-20.

belief releases thought for a while from its immediate environment of sensation and perception. The first stage of belief is marked by uncoordinated beliefs; and this is the stage at which the masses of semi-civilized humanity have halted, the stage of satisfactory ritual and of satisfied belief without impulse towards higher things.²⁰

The second stage of belief occurs when the fourth factor, rationalization, becomes a part of religion. Rationalization attempts to introduce into religious beliefs a rational generality; myths, when retained, are reorganized with the intention of making myth an account of true historical circumstances which exemplify the general ideas with adequate perfection. The life of Christ could be used to exemplify the general idea of love of God and neighbor. The Hebrew religion in the last thousand years before the Christian era went through this stage of rationalization of belief. Whitehead explains how rational criticism is admitted in principle as part of religion when custom no longer suffices to direct man's religious and moral life. Religious beliefs come under the evaluation of individuals when they use direct intuition (ethical, metaphysical, or logical). Religion now emphasizes the individual in his solitariness and his rational criticism of beliefs. Religion has become rational religion, a religion with a

20 RM, pp. 23-28.

system of general truths which provide a coherent ordering both of man's speculative life and of his practical life. Historical examples of rational religion include Buddhism, Mahometanism, Judaism, and Christianity.²¹

The search for a system of general truths as a coherent ordering of man's life is exemplified by the book of Job in dealing with the problem of evil. Job is a good man who is suffering tremendous evils to himself and his family. The concrete circumstances of his suffering seem to belie the general doctrine that the justice of God is beautifully evident in everything that happens. How can Job be a good man, and God let all these evils happen to him? Job is a good man. These evils do happen to him. Therefore, the Hebrews are wrong to believe that God will permit evils to happen only to evil men. Thus the book of Job contains a rational criticism of the Hebraic belief that evils happen only to evil men.²²

However this rational criticism does not solve the problem of evil. The two great rational religions, Christianity and Buddhism, have attempted to deal with this problem. Since Bud-

21 RM, pp. 31, 35-36.

22 RM, pp. 48-49: "There is also throughout the book the undercurrent of fear lest an old-fashioned tribal god might take offense at this rational criticism." Job is tearing to pieces the sophism that all is for the best in the best of possible worlds, and that the justice of God is clearly evident in everything that happens.

dhism finds evil essential to the very nature of individual experience, its doctrine solves the problem of evil by preaching a moral doctrine that releases one from his individual personality, the source of evil. Since Christianity holds that evil derives from the contingency in the world, not from the very fact of individual personality, its moral doctrine is to overcome evil with good.²³ The solutions of Christianity and Buddhism to the problem of evil are solutions to be lived, just as religious truth in general is a truth that is to be lived, not used as a mathematical truth is used. In being lived, their solutions to the problem of evil are then to be understood.

Religion's confrontation with the problem of evil provides an understanding of another aspect of religion as the longing for justification. Whitehead explains "that religion is the longing of the spirit that the facts of existence should find justification in the nature of existence. 'My soul thirsteth for God,' writes the Psalmist."²⁴ The religious need for justification includes not only the need for moral purification and moral development but also the need to understand man's predicament in the problem of evil. The need for justification must be fulfilled morally and speculatively by answering why evils happen to man,

23 RM, pp. 48-49.

24 RM, p. 85.

especially to the good man. In the doctrines of a rational religion, the fact of the existence of evil should find justification in the nature of existence. A rational religion should have a system of general truths which provide a coherent ordering both of man's practical life and of his speculative life.

Whitehead explains that the doctrines of rational religion are the outcome of a universal religious consciousness. Religious consciousness is universal in two ways. First, it is universal as opposed to tribal; that is, all the great rational religions have fundamentally the same consciousness. Secondly, religious consciousness is universal in that it is a disconnection from immediate surroundings, that is, in that it is a consciousness of something permanent and intelligible. The individual in his solitariness can get away from the confusion of immediate experience and everyday life and try to find something permanent and intelligible that gives meaning and justification to all the world and man's life.²⁵

The religious intuition is a consciousness of something permanent and intelligible in so far as it is a consciousness of the ultimate character of value in the universe:

This point of the origin of rational religion in solitariness is fundamental. Religion is founded on the concurrence of three allied concepts in one moment of self-consciousness, concepts whose separate relationships to fact and whose mu-

²⁵ RM, pp. 47, 58-63.

tual relations to each other are only to be settled jointly by some direct intuition into the ultimate character of the universe.

These concepts are:

1. That of the value of an individual for itself.
2. That of the value of the diverse individuals of the world for each other.
3. That of the value of the objective world which is a community derivative from the inter-relations of its component individuals, and also necessary for the existence of each of these individuals.²⁶

The religious intuition occurs most easily in the individual who sincerely seeks the meaningfulness of moral value: "In its solitariness, the spirit asks, What, in the way of value, is the attainment of life? And it can find no such value till it has merged its individual claim for value with that of the objective universe. Religion is world-loyalty."²⁷ The religious intuition is a revelation of the ultimate character of universe as value, "apprehended as we apprehend the characters of our friends. . . . It is an apprehension of character permanently inherent in the nature of things."²⁸ The religious intuition is "a direct intuition of a righteousness in the nature of things, functioning as a condition, a critic, and an ideal."²⁹ The religious experience is a direct intuition of "a character of permanent rightness,

²⁶ RM, pp. 58-59.

²⁷ RM, p. 60.

²⁸ RM, pp. 60-61.

²⁹ RM, p. 63.

whose inherence in the nature of things modifies both efficient and final cause, so that the one conforms to harmonious conditions, and the other contrasts itself with an harmonious ideal."³⁰ The religious experience is "the intuition of immediate occasions as failing or succeeding in reference to the ideal relevant to them. There is a rightness attained or missed, with more or less completeness of attainment or omission."³¹

Whitehead clarifies the religious intuition in two ways. First, he argues that this direct apprehension of a permanent rightness "does not include any direct intuition of a definite person or individual."³² Many rational religions agree that there is no direct vision of God as this specific person or as that specific person. Confucian, Buddhist, and Hindu philosophy agree in this, and so also do most Christian theologians and Greek thinkers.³³ According to Whitehead, there is no direct vision of a personal God. For if the religious intuition is such a direct vision, then the various descriptions of religious experience by different faiths would simply contradict each other with all their

30 RM, p. 58.

31 RM, pp. 60-61.

32 RM, p. 61.

33 RM, pp. 62-64. Whitehead's interpretation of these five trends of thought could be investigated at some length.

different personal gods.³⁴

Secondly, although there is no direct vision of a personal God, Whitehead holds that the religious intuition is the experience of God as a character of permanent rightness immanent in the nature of things. Whitehead explains: (1) that Christ represents rationalism derived from direct intuition; (2) that Christ associated God with the immanence of the Kingdom of Heaven; (3) that the kingdom of heaven is God's primordial, consequent, and superject natures; and (4) that the religious intuition is the experience of the kingdom of heaven.

(1) Christ represents for Whitehead rationalism derived from direct intuition: "The reported sayings of Christ are not formularized thought. They are descriptions of direct insight. The ideas are in his mind as immediate pictures, and not as analyzed in terms of abstract concepts."³⁵ For example, Christ sees intuitively the relations between good men and bad men; he does not talk of goodness and badness. He does not analyze concepts, nor does he reason about facts. Rather, he uses the lowest abstractions that language is capable of, if it is to be language and rational understanding at all and not the fact itself.³⁶

34 RM, pp. 62-64, 66.

35 RM, pp. 56-57.

36 RM, p. 57.

(2) Consequently, when Christ associates "God with the Kingdom of Heaven, coupled with the explanation that 'The Kingdom of Heaven is within you,'" Whitehead understands Christ to be describing an intuitive experience.³⁷ Christ is expressing a decisive emphasis of the immanence of God in the world which was absent in the original Semitic doctrine of God.³⁸

(3) The kingdom of heaven is God's primordial, consequent, and superject natures. In Whitehead's metaphysics, there are four creative phases in the universe. (i) There is God's primordial nature, the principle determining the grading of values prior to the passage of actual things.³⁹ This aspect of God is "the complete conceptual realization of the realm of ideal forms. The kingdom of heaven is God."⁴⁰ This is the phase of the conceptual origination of the universe. (ii) There is the phase of the physical origination of many differing actualities in the universe. In this phase, realities have both mental and physical aspects, but there is a deficiency in the solidarity of the individuals with each other. The potential values or ideal forms of this phase are derived from the immanence in the world of the first

37 RM, p. 72.

38 RM, pp. 72-74.

39 FR, p. 532. Cf. Leclerc, Whitehead's Metaphysics, pp. 189-202, for a brief treatment of God's primordial nature.

40 RM, p. 154.

phase, God's primordial nature. (iii) There is God's consequent nature, the phase of the universe in which the many actualities from the second phase are unified. This third phase of the universe derives from the first two phases: from the first, in that God's primordial valuing of potential forms includes the appetite for actualizing the potential value of God's own consequent nature; and from the second, in that God must unify and preserve the universe as it is given to him with all its suffering and imperfections. In this third phase, God is appropriately termed the kingdom of heaven since he unifies and preserves the values of the universe with the actuality of his own value. (iv) Lastly, there is the phase of God's superject nature in which God passes over into the universe, affecting the many new actualities with his consequent nature. The perfected actuality of the previous world as it has been preserved and valued by God's consequent nature passes over into the temporal world along with the aim of God's primordial nature toward the value of the future universe.⁴¹

(4) The religious intuition is the experience of the kingdom of heaven, the experience of God in his primordial, consequent, and superject natures. The religious intuition is the direct apprehension of the primordial nature of God, "the princi-

⁴¹ PR, p. 532. Cf. Leclerc, op. cit., pp. 203-208 for brief treatment of God as primordial and consequent; cf. also, PR, pp. 134-135 on the primordial, consequent, and superject natures of God.

ple determining the grading of values," as immanent in the individual providing him with his appropriate ideal of value for himself in relation to the value of others and the value of the world as a whole.⁴² The religious intuition is also the awareness of the superject nature of God, i.e., the immanence of the consequent nature of God in the world, his preserving unification and valuation of the past world. The love in the world passes into the love in heaven, the consequent nature of God, and floods back again into the world as the superject nature of God.⁴³ The superject nature, i.e., the immanence of the consequent nature, of God is that factor in religious experience which enables the individual to conceptualize clearly the third element revealed in religious experience. For it is the immanence of God's consequent nature that makes the individuals of the universe into a valuable community, a solidarity, both as derived from God's preserving unification and valuation of past actualities and as necessary for the existence of each present actuality as a potentially valued member of the kingdom of heaven.⁴⁴

This brief comparison of the religious intuition with Whitehead's concept of the primordial, consequent, and superject

42 RM, p. 60.

43 RM, p. 532.

44 RM, p. 59.

natures of God has helped to clarify what the religious intuition discloses. The religious intuition is a direct experience of a character of permanent rightness, the kingdom of heaven, whose immanence in things modifies both efficient and final cause. Efficient causation in the world is modified by the efficient causation of this character of permanent rightness. Efficient causation in the present actualities is influenced by God's superject nature, the overflow of God's consequent nature into things. It is God's consequent nature which helps to make the world unified and harmonious. Final causation in things is initially derived in each new thing from the final causation of God's primordial nature as immanent in things. God's superject nature, by its aim at the value of the future universe, also affects the final aims of things. Both God's primordial finality and superject finality help to unify the final causality of the many actualities in the universe. In summary, the direct apprehension of God's primordial, consequent, and superject natures as immanent in the individual as a character of permanent rightness enables him to know his own value, the value of individuals for each other, and the value of the world as a community.

The immanence of the kingdom of heaven is Whitehead's Christian solution of the problem of evil. The kingdom of heaven tries to overcome evil with good. Evil is the brute motive force of fragmentary purpose, disregarding the eternal, harmonious fi-

nality of the kingdom of heaven.⁴⁵ When God's consequent nature is affected by something evil, i.e., by the result of fragmentary purpose, the harmonious finality of his primordial and superject natures presents new final causes to actualities. If the actualities achieve these final causes, harmonious purpose will overcome fragmentary purpose. Good will overcome evil by the power of God's persuasive ideals.

Even more than providing for the solution of particular evils, the immanence of the kingdom of heaven makes each present actuality a potentially valuable member of the kingdom of heaven. The ultimate evil of the temporal world is that its actualities are temporal--that they cease to be. Past temporal actualities have affected present actualities causally, but present actualities do not preserve the full immediacy of the past.⁴⁶ Whitehead explains how the kingdom of heaven solves this ultimate evil. God's aim in his primordial nature includes the appetite for his consequent nature. God's consequent nature is causally affected by temporal actualities, but God unifies and preserves their values achieved and their immediacy in himself.⁴⁷ Since the kingdom of heaven solves the ultimate evil in the world, it follows that

⁴⁵ SMW, p. 276.

⁴⁶ PR, p. 517.

⁴⁷ PR, p. 524.

it is religious experience that discloses the ultimate good, the kingdom of heaven. The kingdom of heaven is the ultimate good, both as immanently providing the potential value for each actuality and as immanently preserving the value of each actuality in its immediacy. The kingdom of heaven discloses in the religious intuition that the temporal individual is valuable in an everlasting way, that the individuals in their mutual temporal relationships are valuable in an everlasting way.⁴⁸

This study agrees with Thompson's study of Whitehead's philosophy of religion in that the religious intuition for Whitehead is an "intuition disclosing a real order or permanence in the ultimate nature of things which is both productive and protective of value."⁴⁹ This study also agrees with Thompson that the permanent rightness, immanent in the nature of things and modifying both efficient and final causality, is to be correlated with Whitehead's metaphysical description of God's primordial, consequent, and superject natures.⁵⁰ In evaluating Whitehead's description of the religious intuition as the foundation of rational religion, Thompson holds that Whitehead is content merely to formulate his

48 PR, p. 525.

49 Kenneth Thompson, Jr., Whitehead's Philosophy of Religion (unpublished Ph.D. dissertation, Columbia University, 1963) p. 51.

50 Ibid., p. 67.

description of the intuition and is unable to answer questions about the precise nature and character of the data disclosed in the religious intuition. In questioning the precise nature and character of the data disclosed in the religious intuition, Thompson does not mean that Whitehead made no attempt at clarifying the experience. For Thompson himself, although he does not emphasize the interpretation of the experience as the immanence of the kingdom of heaven, points out clearly and exhaustively how to correlate the religious intuition with Whitehead's metaphysical description of God. What Thompson means is that the religious intuition as stated by Whitehead is both vague and ambiguous as an evidence in its own right.⁵¹

Thompson's interpretation is correct with regard to Religion in the Making, but not with regard to Whitehead's last book, Modes of Thought. In the former work, Whitehead is content merely to formulate his assertion and to correlate it with his metaphysical description of God. He does state the religious intuition in several ways; he does correlate it with the search for moral value; he denies that it is an experience of God as this personal deity or as that personal deity; he does interpret it in terms of the kingdom of heaven. However, the evidence of the religious intuition remains vague and ambiguous in its own right and

51 Ibid., p. 242.

relies heavily for its truth value upon Whitehead's elaborate metaphysical description of God. However, in Modes of Thought, Whitehead's aim is to examine some of those general characterizations of human experience which are presupposed in the directed activities of mankind. He makes no attempt to frame a systematic philosophy, but rather he condenses for publication those features of his Harvard lectures which were incompletely presented in his previous works.⁵² It is in this pre-systematic presentation that Whitehead reconsiders the religious intuition in order to clarify it in terms of itself apart from a technical metaphysics.

Whitehead himself considers an objection to his use of the religious intuition quite similar to Thompson's evaluatory remarks. An intuition merely experienced in exceptional moments is simply a function of those moments. The intuition is a private psychological fact and is without general evidential force. Whitehead answers the objection. Those intuitions which emerge under exceptional circumstances and remain knowable only under such conditions have only personal significance. But those intuitions which emerge under exceptional circumstances and become knowable apart from those circumstances have more than personal significance; such intuitions have general evidential force. Such generally evident intuitions may be clearer under exceptional cir-

52 MT, pp. viii, 1-2.

cumstances, even though the intuitions should not be confined to such circumstances.⁵³ Although Whitehead does not say so, it is the view of this study that the Modes of Thought description of the sense of Deity is his attempt to make the religious intuition generally evident. Consequently, the sense of Deity must be described before examining its relationship to the function of speculative reason.

C. The Religious Intuition as the Sense of Deity

The presupposition for the description of the sense of Deity is Whitehead's discussion of matter-of-fact and importance in Lecture One of Modes of Thought. The notion of matter-of-fact is the concept of something that simply happens, without purpose, without value, without importance. "Matter-of-fact is the notion of mere existence."⁵⁴ "This grasp of factuality is one extreme of thought. Namely, it is the concept of mere agitation of things agitated."⁵⁵ This notion of mere matter-of-fact is the hidden ideal of physical scientists who insist upon the exclusive importance of objectivity. The proverb that applies to nature applies also to the notion of importance: Expel nature with a pitch-fork, and it ever returns. To uphold objectivity in scientific and re-

53 RM, pp. 64-66.

54 MT, p. 9.

55 MT, p. 11.

flective thought as an ideal is to insist upon the importance of objectivity for man. The zeal for truth presupposes that truth is important. Also sustained observation presupposes importance. For concentrated attention means disregard of irrelevancies; and this disregard can only be sustained by some sense of importance. Consequently, the sense of importance is embedded in the very being of human and animal experience.⁵⁶

Whitehead points out that it is difficult to use words to evoke a sense of this general character of importance. For words are generally used to indicate useful particularities. Great literature tries to go beyond the usual usage of language and evoke such vivid feelings as the pervasive sense of importance.⁵⁷ One way of characterizing importance is "that it is that aspect of feeling whereby a perspective is imposed upon the universe of things felt."⁵⁸ The perspective an individual takes upon the universe is the result of his individual interests. Such a notion of importance as perspective tends "to reduce the concept of importance to mere matter-of-fact devoid of intrinsic interest."⁵⁹ Physical science can use this notion of perspective; "the

⁵⁶ MT, pp. 10-12.

⁵⁷ MT, p. 7.

⁵⁸ MT, p. 15.

⁵⁹ MT, p. 15.

consequent science is the scheme of physical laws which . . . expresses the patterns of perspective as observed by average human beings."⁶⁰ But Whitehead refuses to reduce importance to perspective. "Perspective is the dead abstraction of mere fact from the living importance of things felt. The concrete truth is the variation of interest; the abstraction is the universe in perspective."⁶¹

In insisting that importance is more than mere perspective, Whitehead is speaking of the most primitive stage of discrimination in human experience. He gropes for the appropriate words: The "primary experience which lies below and gives its meaning to our conscious analysis of qualitative detail . . . is a value-experience. Its basic expression is--Have a care, here is something that matters! Yes, that is the best phrase--the primary glimmering of consciousness reveals, Something that matters."⁶² There is a sense of worth at the base of our existence. Worth here is not to be conceived as a feeling which man simply subjectively attributes to his grasp of reality. Rather, the sense of worth essentially presupposes that which is worthy. The sense of Something that matters is the sense of existence for its own sake,

60 MT, pp. 15-16.

61 MT, p. 15.

62 MT, pp. 158-159.

of existence which is its own justification, of existence with its own character.⁶³

It is this sense of Something that matters which Whitehead explicates as the sense of Deity. This experience of Something that matters provokes attention. Attention dimly discloses a three-fold character: Totality, Externality, and Internality. These are not clear concepts but dim presuppositions which guide conscious analysis of details. Any experience of the world will assume as obvious the Totality of actual fact, the Externality of many facts, and the Internality of the one experiencing.⁶⁴

Whitehead insists that this three-fold character is "primarily a dim division. The sense of totality obscures the analysis into self and others. Also this division is primarily based on the sense of existence as a value-experience. Namely, the total value-experience is discriminated into this value-experience and those value-experiences."⁶⁵ The fundamental basis of this description is that our experience is a value-experience, expressing a vague sense of a power maintaining and realizing its own purpose.⁶⁶ "Our experience starts with a sense of power. . .

63 MT, p. 149.

64 MT, p. 159.

65 MT, p. 150.

66 MT, p. 150.

Power is the compulsion of composition [of actuality]. . . . The essence of power is the drive towards aesthetic worth for its own sake."⁶⁷ The drive of actuality towards aesthetic worth for its own sake is the appetite of purpose, the appetite of self-importance. "We have no right to deface the value-experience which is the very essence of the universe. Existence, in its own nature, is the upholding of value-intensity."⁶⁸

This fundamental sense of reality as a value-experience, with a power striving to maintain and realize its own purpose, is the sense of Something that matters. Whitehead has affirmed that this sense of Something that matters discloses dimly to attention a three-fold character, Totality, Externality, and Internality, but he has not explained why attention reveals this character. He begins to explain that this sense of Something that matters first differentiates itself into "the sense of many existences with value-experience; and that this sense of the multiplicity of value-experiences again differentiates . . . into the totality of value-experience, and the many other value-experiences, and the egoistic value-experience."⁶⁹

The Internality of the one experiencing Something that

67 MT, p. 163.

68 MT, p. 151.

69 MT, pp. 150-151.

matters is the clearest example of reality as value-experience.

"Importance reveals itself as transitions of emotion. My importance is my emotional worth now, embodying in itself derivations from the whole, and from the other facts, and embodying in itself reference to future [value-experiences]."⁷⁰ The Externality of reality is revealed in so far as the self (Internality) feels itself as deriving from the past, i.e., from other value-experiences, and in so far as the self feels itself as tending to communicate its own value-experience into the value-experiences of others. The Totality of reality is revealed in so far as the self feels itself as deriving from the Totality of value-experience of the past and as preparing its contribution for the Totality of value-experience of the future.

The self feels itself as deriving from Externality, i.e., from other value-experiences. The most explicit example of derivation from Externality is memory, "our realization of those other actualities, which we conceive as ourselves in our recent past, fusing their self-enjoyment with our immediate present."⁷¹ "It is the importance of the others which melts into the importance of the self. Actuality is the self-enjoyment of importance. But this self-enjoyment has the character of the self-enjoyment of

70 MT, p. 160.

71 MT, p. 161.

others melting into the enjoyment of the one self."⁷² The actuality of the present self is constituted by a process of composition from the past facts that "have such closeness of reference to the immediate self that an intimate unity with them is claimed. In this way, the concept of self-identical enduring personal existence dawns."⁷³ From one point of view, namely, attending to the past, Whitehead holds that the "sense of externality is based on the primary self-analysis of the process of composition."⁷⁴ The analysis discloses the most valuable facts of the past self becoming factors in the present composition of the self as a power striving to maintain and realize its own purpose.

Complementary to the point of view which attends to the past, there is the point of view which attends to the future. This latter point of view also discloses the externality. Attention to the future is involved in the self's striving to maintain and realize its own purpose. The self's conceptual entertainment of unrealized possibility is, in its highest development, the entertainment of the ideal.⁷⁵ This sense of the ideal is involved in the urge of the self to express itself. "Expression is the

72 MT, p. 161.

73 MT, p. 160.

74 MT, p. 163.

75 MT, p. 37.

diffusion, in the environment, of something initially entertained in the experience of the expressor."⁷⁶ "The more general notion of Importance is presupposed by Expression. Something is to be diffused throughout the environment which will make a difference."⁷⁷ The self has the feeling that it has something important to express to others. This something important should become part of the importance of others. This impulse and urge to diffuse "is the most fundamental evidence of our presupposition of the world without."⁷⁸ Both the past and the future of the self disclose evidence for the externality of the world.

There is another way in which attention to the future discloses the Externality of the world. Attention to the future is involved in the self's striving to maintain and realize its own purpose, its ideal. The self's conceptual entertainment of unrealized possibility is, in its highest development, the entertainment of the ideal. This sense of the ideal is one way of experiencing importance, in this case, something important that needs to be achieved by the self. This experience of ideals includes through memory the experience of having sometimes succeeded and other times failed. Whitehead explains how this experience

76 MT, p. 29.

77 MT, p. 28.

78 MT, p. 29.

discloses the externality of the world:

The intertwining of success and failure in respect to this final experience is essential. We thereby experience a relation to a universe other than ourselves. We are essentially measuring ourselves in respect to what we are not. A solipsist experience cannot succeed or fail, for it would be all that exists. That would be no standard of comparison. Human experience explicitly relates itself to an external standard. The universe is thus understood as including a source of ideals.⁷⁹

Whitehead's intuition may be explicated in the following modus tollens conditional syllogism in order to elucidate its self-evidence:

If the self were solus ipse, there would be no success or failure, in fact, no striving for ideals at all. For self would be all that exists; and since it would be all that could exist in a solipsistic world, it would be unable to experience a relationship to a universe of ideals other than itself.

But the self does strive for ideals, and further, does have success and failure in its striving for ideals.

Therefore, the self is not solus ipse.

The self knows "the sense of external reality—that is to say, the sense of being one actuality in a world of actualities—is the gift of aesthetic significance. This experience claims a relevance beyond the finite immediacy of any one occasion of experience."⁸⁰ "Importance, limited to a finite individual occasion, ceases to be important."⁸¹ The self as solus ipse ceases to be

79 MT, pp. 141-142.

80 MT, p. 165.

81 MT, p. 28.

important. In other words, Whitehead is affirming that the self's conviction in and sense of importance, Something that matters, is intelligible only if the self's importance continues and develops the importance of the past and prepares for the importance of the future. Attention to the past and future of the self reveal both how the self is in a process of constituting itself from valuable facts of its past and how the self has the impulse to diffuse the importance that it realizes into its environment.

On the one hand, the self (Internality) feels its value-experience as deriving from the past, namely, from the Externality of many value-experiences, and as preparing for the future, that is, preparing to diffuse its own value-experience into the Externality of value-experiences of others. On the other hand, the self (Internality) also feels itself as deriving from the Totality of value-experience of the past and as preparing its contribution for the Totality of value-experience of the future. Whitehead affirms that this factor of the Totality of value-experience "is disclosed in our sense of the value, for its own sake, of the totality of historic fact in respect to its essential unity. There is a unity in the universe, enjoying value and (by its immanence) sharing value."⁸² Whitehead does not give an analysis of the composition of the self (Internality) which reveals this factor of

82 MT, pp. 163-164.

the Totality in the past of the self as he has done for the factor of Externality. Rather, he tries to evoke in the listener a sense of how the value of the present needs to be taken into the value of the Totality.⁸³ This "sense of the value of the details for the totality . . . is the intuition of holiness, the intuition of the sacred, which is at the foundation of all religion."⁸⁴ This is the intuition that importance, limited to the importance of Internality and Externality, ceases to be important. "Importance is derived from the immanence of infinitude [*i.e.*, Totality,] in the

83 MT, p. 164: "When we survey nature and think however flitting and superficial has been the animal enjoyment of its wonders, and when we realize how incapable the separate cells and pulsations of each flower are of enjoying the total effect—then our sense of the value of the details for the totality dawns upon our consciousness."

Hartshorne expresses Whitehead's intuition of the need in moral experience for an ultimate preservation of values realized in the universe: "But even the most secular among us, especially when we are at our best, have a feeling of contributing to some permanent and common good. Without this feeling, one act must seem to us as reasonable as any other, since the rational judgment of acts refers to the good on the whole and in the long run. Now how can human individuals, destined as they are for death, not only individually but, as it seems, collectively, racially, and lacking any but the most fitful and incomplete awareness of each other's values, or even of their own past values—how can such as these serve any inclusive, permanent, common good unless there be a God whose unitary, sympathetic, and deathless awareness, incapable of forgetting, derive value from our momentary and fragmented welfare?"

Hartshorne, "Ideal Knowledge Defines Reality: What Was True in 'Idealism,'" Journal of Philosophy, XLIII, no. 21 (Oct. 10, 1946) p. 582.

84 MT, p. 164.

finite [i.e., Internality and Externality.]⁸⁵ "Everything has some value for itself, for others, and for the whole. This characterizes the meaning of actuality."⁸⁶ This meaning is the primary explication of the sense of Something that matters in its three-fold character. Neither Internality, nor Externality, nor Totality in any sense predeces the others.⁸⁷ The "dim meaning of fact—or actuality—is intrinsic importance for itself, for the others, and for the whole."⁸⁸ The religious intuition is the experience of the three-fold character of Something that matters, the inter-connected values of self, others, and the whole.

In Modes of Thought, Whitehead identifies the religious intuition as the sense of Deity.⁸⁹ He uses the sense of Deity to refer to value-experience and to the self's experience of ideals. This double usage occurs in the following text:

Apart from this sense of transcendent worth, the otherness of reality would not enter into our consciousness. There must be value beyond ourselves. Otherwise every thing experienced would be merely a barren detail in our own solipsist mode of existence. We owe to the sense of Deity the obviousness of the many actualities of the world. . . .⁹⁰

85 MT, p. 28.

86 MT, p. 151.

87 MT, p. 159.

88 MT, p. 159.

89 MT, pp. 140-142, 163-164.

90 MT, p. 140.

The sense of transcendent worth is the sense of Deity. This is the experience of values as other than, as beyond, the present self. Value-experiences are other than the present self in two ways: first, as achieved value-experiences in the past; and secondly, as ideals, i.e., as value-experiences to be achieved in the future by self and others. Both the otherness of reality and the multiplicity of other actualities is disclosed in the sense of Deity. The otherness of reality especially is revealed in the self's experience of ideals only partially achieved. If the self were solipsistic, it would not measure itself by ideals, by something other than itself; nor would it fail to achieve its ideals, since it would have no external standard of comparison to judge itself by. This external standard of comparison is a source of ideals other than the self. The multiplicity of other actualities is disclosed in the analysis of the self as a process of constituting itself from many valuable facts of its past. The analysis of the self also discloses the impulse of the self to diffuse the value that it has realized into the otherness of its environment. We owe to the sense of Deity the obviousness of the otherness of reality and of the many actualities in reality.

Whitehead has used the sense of Deity to refer to value-experience and to the experience of ideals. He also uses the sense of Deity to refer primarily to Deity, that factor which unifies the many value-experiences of the universe into the value of

the Totality and which is the source of the ideals striven after by all value-experiences. This usage occurs in the following text: "We owe to the sense of Deity . . . the obviousness of the unity of the world for the preservation of the values realized and for the transition to ideals beyond realized fact."⁹¹ Whitehead's intuition is that only Deity, immanent in experience as the ultimate preserving unification of value-experiences and as the source of the world's unity of ideals, could make intelligible the unity of the transcendent universe for the preservation of values realized and for the ideals of the universe.⁹² Immanent in experience as the unification of value-experiences, Deity is the Totality which is directly experienced.⁹³ Immanent in experience as the source of ideals, i.e., of potential values to be realized, Deity is the external standard to which "human experience explicitly relates itself."⁹⁴

In summary: Whitehead has used the sense of Deity to refer both to value-experience and the experience of ideals and to Deity itself as the ultimate unification of value-experiences and as the ultimate source of ideals. This multiple meaning of the

91 MT, p. 140.

92 MT, pp. 140, 142.

93 MT, pp. 150-151, 158-160, 163-164.

94 MT, pp. 141-142.

sense of Deity is used by Whitehead to explain the obviousness of the otherness of value-experiences, the obviousness of the multiplicity of value-experiences, the obviousness of the unification of value-experiences, and the obviousness of the unity of the ideals of value-experience. The Modes of Thought description of the sense of Deity is Whitehead's attempt to ~~make~~ generally evident the religious intuition of the three-fold character of Something that matters, the interconnected values of self, others, and the whole. Whitehead indicates that this sense of Deity exhibits itself in several ways, such as, "the sense of morality, the mystic sense of religion, the sense of that delicacy of adjustment which is beauty, [and] the sense of necessity for mutual connection which is understanding."⁹⁵ It is the purpose of the next section to show how the sense of Deity as the sense of necessity for mutual connection may serve as a defense of the function of speculative reason.

D. The Function of Speculative Reason Considered in Light of Rational Religion and The Religious Intuition as the Sense of Deity

The relevance of the religious intuition to the function of speculative reason can best be considered after a consideration of the relevance of rational religion. These two aspects will be considered in turn: (1) rational religion, and (2) the religious

intuition.

(1) The relevance of rational religion as a way of life to the function of speculative reason is found in Whitehead's emphasis on justification. He has explained that rational religion should have a system of general truths which justify a person by cleansing his character of faults and by developing the character towards the religious ideal of perfection. Rational religious truth is that which fulfills man's longing for justification. Religion's confrontation with the problem of evil reveals another aspect of religion as the longing for justification. Religion is the longing of the spirit that the facts of existence should find justification, i.e. finality, in the nature of existence. The religious need for justification includes not only the need for moral purification and moral development but also the need to understand man's predicament in the problem of evil and the need to be rescued from this predicament.

Speculatively, the need for justification can be fulfilled by answering man's question of why evils happen to man, especially to the good man. Practically, the need for justification can be fulfilled by a religious life in which evil is overcome or escaped from in some manner. There is an ultimate evil in the temporal world deeper than any specific evil: all temporal realities cease to be. By itself the temporal world does not provide for the unification and preservation of values achieved. Rational

religion attempts to solve this ultimate evil of the temporal world and the problem of specific evils in the world. One who lives religion has a deep longing of the spirit that the facts of existence should find justification in the nature of existence.

As the longing that the facts of existence should find justification, i.e. finality, in the nature of existence, rational religion supports the function of speculative reason. A person who lives religion hopes that the facts of existence, including specific evils and the ultimate evil of the temporal world, will find meaning (that is, a justification, a purpose, a value) in the nature of reality. In so far as his religion has been rationally criticized, that is has become a rational religion, this person will find little or no difficulty in accepting the ideal of speculative reason. "Religion is the translation of general ideas into particular thoughts, particular emotions, and particular purposes; it is directed to the end of stretching individual interest beyond its self-defeating particularity."⁹⁶ Religion seeks a world-encompassing finality. The rationalism encouraged by rational religion can easily overflow into the valuable human project of metaphysical speculation, for example, about the nature of the particular temporal realities and their relation to a possible permanent and intelligible reality which is non-temporal.

⁹⁶ PR, p. 23.

"Religion is an ultimate craving to infuse into the insistent particularity of emotion that non-temporal generality which primarily belongs to conceptual thought alone."⁹⁷ As an ultimate craving to understand particulars in terms of general principles, religion is a demand for an intellectual justification of brute experience. This demand has been the motive power in the advance of European science. In this sense the speculative scientific interest is only a variant form of religious interest. Scientific devotion to truth as an ideal is very similar to religious devotion to moral and religious justification as an ideal.⁹⁸

The correlation of the ideal of speculative reason with religion as the longing that the facts of existence find justification in the nature of existence presupposes the acceptance of rational religion. The religious intuition as the basis of rational religion must now be examined as to its possible correlation with the function of speculative reason.

(2) The religious intuition as the sense of Deity can serve as a defense of the function of speculative reason in that the sense of Deity involves a sense of necessity of mutual connection. Whitehead has indicated that "rationalism presupposes a

97 PR, p. 23.

98 PR, p. 24.

complex of definite facts whose interconnections are sought."⁹⁹ But rational religion is based on an intuition into the ultimate character of the world. This intuition discloses the values of self, of others, and of the world as a community derivative from the interrelations of its members and as necessary for their continued existence. The dim but fundamental meaning of an existing actuality is intrinsic importance, i.e., intrinsic justification, purpose, value, for itself, for others, and for the whole. This sense of the three-fold scheme of Something that matters is "our primary experience which lies below and gives its meaning to our conscious analysis of" the world.¹⁰⁰

Any experience of the world will assume as obvious the totality of actual fact (the whole), the externality of many facts (the others) and the internality of the one experiencing (the self). This three-fold scheme of something with intrinsic justification is the presupposition which any experience requires. It is also the self-evident insight into the presupposition of any attempt to explain existing actualities. For if existing actualities are not experienced to have intrinsic importance for themselves, for others, and for the whole, then such actualities do not exist for their own sake; they do not exist with their own

99 RM, p. 24.

100 MT, p. 158.

justification. To exist without importance is to exist without value or purpose. To exist without purpose, without justification through final causality, is to be a mere matter of fact incapable of being understood as an element in a system.¹⁰¹

Whitehead also indicates that the religious intuition is the basis, the ultimate premise, of any rational evaluation of conscious determination of actions. This point may be used to support the function of speculative reason.¹⁰² The ultimate premise of any rational understanding of particular actualities is disclosed in the religious intuition as a general character of rightness inherent in the nature of things. This ultimate character of the universe is experienced as intrinsic importance for self, others, and the whole. To exist as a self with such importance, that is, to exist with such interrelationship with others and the whole by final causality, is to exist capable of being understood as an element in a system.

The sense of Deity discloses both the ultimate source

101 PR, p. 21.

102 RM, pp. 66-67: ". . . there is . . . a rightness in things, partially conformed to and partially disregarded. So far as there is conscious determination of actions, the attainment of this conformity is an ultimate premise by reference to which our choice of immediate ends is criticized and swayed. The rational satisfaction or dissatisfaction in respect to any particular happening depends upon an intuition which is capable of being universalized. This universalization of what is discerned in a particular instance is the appeal to a general character inherent in the nature of things."

of potential value, i.e. meaning or finality, in the universe and the ultimate end or preserving unification of values or meanings achieved in the universe. The explication of this intuition of Deity as the ultimate source and end of meaning in the universe necessarily establishes the function of speculative reason. In this experience of Deity, man knows that metaphysical reasons can be given for the facts in the universe; man knows that the ultimate reasons for meaning in facts, both their ultimate source and their ultimate end, can be given.¹⁰³ In fact, they are given in that very experience.

This section has explained how the sense of Deity as the sense of necessity of mutual connection serves for Whitehead as the intuited evidence defending the function of speculative reason. The next section describes the agreement of this study with other investigations on Whitehead.

E. The Agreement of this Study with Other Investigations of Whitehead, Especially Hartshorne's and Tillich's

The thesis of this study, the positive connection between the sense of Deity and the function of speculative reason, agrees with the results of studies done by Belaief, Cobb, Hartshorne, Tillich, and Thompson. The agreement with these investigators will be taken in that order.

103 FR, p. 65.

In a consideration of Whitehead's methodological presuppositions, Belaief has concluded that Whitehead's "vision of the world as a creative process of internally related individualities ultimately grounded in, and everlastingly moving toward, a final total unity of value and order . . . has led him to the faith of rationalism."¹⁰⁴ Underlying this faith in reason's speculative function, there is, Belaief points out, an intuition of infinity, a religious experience, expressed as the ideal limit toward which the world progresses, and therefore, towards which philosophical description aims.¹⁰⁵ However, Belaief has not differentiated the descriptions of the religious intuition in Religion in the Making and Modes of Thought, as this study has done; nor has she pointed out Whitehead's explicit correlation of the sense of Deity with the sense of necessity of mutual connection which is understanding.

Belaief does point out that the religious experience at the basis of Whitehead's rationalism should be related to an argument in Process and Reality for God's consequent nature as the principle of truth.¹⁰⁶ While he is discussing truth as an ideal

¹⁰⁴ Lynne Belaief, The Ethics of Alfred North Whitehead (unpublished Ph.D. dissertation, Columbia University, 1964) p. 30.

¹⁰⁵ Ibid., pp. 30-31.

¹⁰⁶ Ibid., p. 35; Belaief makes no further comment on the argument besides that simple statement.

limit, namely, fully expressed propositions, Whitehead states the following argument:

The truth itself is nothing else than how the composite natures of the organic actualities of the world obtain adequate representation in the divine nature. Such representations compose the 'consequent nature' of God, which evolves in its relationship to the evolving world without derogation to the eternal completion of its primordial conceptual nature. In this way the 'ontological principle' is maintained since there can be no determinate truth, correlating impartially the partial experiences of many actual entities, apart from one actual entity to which it can be referred.¹⁰⁷

Since there is no other reference to this argument in Whitehead's writings, its meaning for his metaphysics has generally been neglected. This argument is similar to Josiah Royce's argument in his article, "The Eternal and the Practical."¹⁰⁸ Royce's and Whitehead's conclusions are the same. Royce concludes that the Eternal Knower is invariant and yet growing because the world grows.¹⁰⁹ Whitehead concludes that God's consequent nature evolves in its relationship to the evolving world without derogation to the eternal completion of his primordial conceptual nature. Royce's main premise is that man in asserting a judgment to be true expresses a need for truth.¹¹⁰ Although Whitehead has

107 PR, pp. 18-19.

108 Josiah Royce, "The Eternal and the Practical," The Development of American Philosophy, eds. Muellder and Sears (Boston: Houghton Mifflin Co., 1940) pp. 246-261.

109 Ibid., p. 261.

110 Ibid.

not expressed the premises of his argument, he must have the same main premise. For his conclusion is that God is the actual entity who determines truth, who correlates impartially the partial experiences of many actual entities. This conclusion is the result of the ontological principle, both in so far as reasons can be given (only through actual entities) and also in so far as it states that there is a final truth, that final reasons can be given.¹¹¹

Whitehead's main premise must be the same as Royce's, namely, that there is a need for a final truth. There is a need for a final impartial correlation of the partial experiences of the many actual entities, since otherwise there would be no truth. This need for truth is essential to man since every judgment which asserts that there is truth expresses thereby a need for truth.¹¹² Therefore, this need for a final determination of impartial truth must be fulfilled by an actual entity capable of such a final determination. Such an entity can only be God since the finality of his primordial nature encompasses all possible actual entities (potential values). This all-encompassing finality makes God

¹¹¹ Cf. chapter four for further discussion of Whitehead's ontological principle.

¹¹² Whitehead nowhere identifies the premises of his argument, but these presuppositions can be discovered in his discussion of his theory of judgments as both a coherence theory and a correspondence theory in PR, pp. 290 ff.

capable of being causally affected by, of being related with perfect feeling and knowledge, to every temporal actual entity without partiality. Every temporal actual entity has only a perspectival or limited finality which makes it capable of being related to any actual entity only with partiality. Only God through the perfection of the unchanging finality of the primordial nature is capable of perfectly knowing the world as it continues to grow and affect his consequent nature.¹¹³

John Cobb offers a suggestion for interpreting this argument for the primordial and consequent natures as the ground of the possibility of truth. He believes that Whitehead is arguing from the sense, that all men have, "that there is some structure to which our formulations more or less adequately approximate."¹¹⁴ This sense of "reality as a whole" is exactly what Whitehead means by the sense of Deity. Because man experiences the structure of reality as a whole, he is dimly aware that all his judgments are trying to express the truths that Deity knows perfectly.

Charles Hartshorne identifies the Modes of Thought experience of Deity with Whitehead's Roycean argument.¹¹⁵ This

113 PR, pp. 523-524.

114 Cobb, A Christian Natural Theology (Philadelphia: Westminster Press, 1965) p. 166. Cobb does not point out the connection between this sense of "reality as a whole" with the sense of Deity.

115 Hartshorne, "Whitehead's Idea of God," The Philoso-

study agrees with Hartshorne that the sense of Deity is self-evident but obscure and that consequently the experience needs to be emphasized, pointed out, through the effects it has on the rest of man's experience. Hartshorne is correct when he says that one of the effects which the experience of Deity causes is that truth is objective. The sense of Deity as the structure of reality as a whole gives man the sense that his judgments are trying to approximate that objective structure. Although Hartshorne identifies the sense of Deity with Whitehead's Roycean argument, Hartshorne also distinguishes the two passages, since the sense of Deity can be a religious experience of the value of reality as a whole.¹¹⁶ This study has emphasized the latter aspect, the experience of the value of reality as a whole. For in Modes of Thought, Whitehead emphasizes the dim but fundamental experience as a sense of 'Something that matters' in a three-fold scheme, Internality, Externality, and Totality. It is the sense of the value of the Totality of the universe which enables Whitehead to identify this experience as the sense of Deity. Hartshorne does not emphasize this sense of Deity as intuitively given in experience. But Hartshorne is correct when he says that the sense of Deity serves as the foundation of Whitehead's Roycean argument. Hartshorne is also

¹¹⁶ Hartshorne, "Ideal Knowledge Defines Reality: What Was True in 'Idealism,'" op. cit., p. 582.

correct when he says that the sense of Deity serves as the basis of moral life and ethical theory.¹¹⁷ For as Whitehead said, "Everything has some value for itself, for others, and for the whole. This characterizes the meaning of actuality. By reason of this character, constituting reality, the conception of morals arises."¹¹⁸

Tillich's interpretation of Whitehead agrees with Harts-horne in holding that there is an awareness of something ultimate in value and being in every human or intentional act, whether the act is theoretical (for the sake of truth) or practical (for the sake of good).¹¹⁹ Tillich holds that the fundamental commitment which directs Whitehead's philosophical approach is a type of mystical or religious experience, namely, the awareness of value-producing processes. This perception and conception of reality is based on an immediate experience of something ultimate in value and being of which man can become aware intuitively.¹²⁰ Although Tillich does not offer an analysis of the Modes of Thought description of the sense of Deity, he is correct in identifying

117 See above, this chapter, p. 91, footnote 83.

118 MT, p. 151.

119 Tillich, "The Two Types of Philosophy of Religion," Union Seminary Quarterly Review, I, no. 4 (May, 1964) pp. 10-11.

120 Tillich, Systematic Theology, Vol. I (Chicago, University of Chicago Press, 1951) pp. 9, 43.

Whitehead's fundamental point of departure as the awareness of value-producing processes, which awareness is based on an immediate experience of Deity. This sense of Deity is relevant to speculative reason as the sense of necessity of mutual connection of all the value-experiences in the universe, and to practical reason as the sense of the interconnected values of self, others, and the whole.¹²¹

Thompson has pointed out that Whitehead's rationalism "finds justification or at least exemplification in immediate experience in that immediate experience discloses complex entities having temporal duration and which are in the process of transition."¹²² In intuitive experience there is disclosed an experiential complexity-unity of different factors. This unity of the many has an aesthetic harmony which is to be expressed in a rational understanding.¹²³ However, Thompson argues, the extension of this description of immediate experience beyond immediate experience presupposes a doctrine of empirical analogy: "P/hilo-
sophical generalization presupposes as a metaphysical ground a uniform structure of experience such that the essential constitution of one entity is empirically analogous to that of others."¹²⁴

121 MT, p. 37.

122 Thompson, op. cit., p. 79.

123 Ibid.

124 Ibid., p. 80.

When metaphysical generalization is an inductive inference beyond immediate experience, there must be an actual ground for the inference. Thompson concludes, referring to Whitehead's discussion of the presuppositions of scientific generalization that if analogical inference is to be possible, there must be an actuality which is the ground, the presupposition, of the possibility of metaphysical truth. This actuality is God.¹²⁵

Thompson does not argue that this ground of the possibility of metaphysical truth could be known intuitively and be related to the function of speculative reason. He was probably influenced by Whitehead's statement that these non-statistical judgments are not in any sense religious.¹²⁶ Whitehead's correlation of the sense of Deity with the function of speculative reason occurred in Modes of Thought, the book which Thompson did not emphasize. Once the sense of Deity is so correlated, an ob-

¹²⁵ Ibid.: "Now, 'in every inductive judgment, there is . . . contained a presupposition of the maintenance of the general order of the immediate environment, so far as concerns actual entities within scope of induction.' /PR, p. 311/. . . Thus, 'the basis of all probability and induction is the fact of analogy between an environment presupposed and an environment directly experienced.' /PR, p. 314/ Beyond the principle of analogy must be a fact of analogy if inference is possible and if the ontological principle is valid. Thus the method of metaphysical generalization, particularly as it involves inductive inference, presupposes a non-statistical ground of inference which is itself actual. To this actuality Whitehead gives the name 'God'."

¹²⁶ PR, pp. 314-315.

scure passage of Whitehead becomes intelligible.

Faith in reason is the trust that the ultimate natures of things lie together in a harmony which excludes mere arbitrariness. It is the faith that at the basis of things we shall not find mere arbitrary mystery. . . . This faith cannot be justified by any inductive generalization. It springs from direct inspection of the nature of things as disclosed in our own immediate present experience.¹²⁷

This is Whitehead's strongest statement calling for an intuited evidence (which Thompson has not appealed to) that defends the function of speculative reason. To experience this faith in reason is to know that man in his experience is more than his own particular experience. To experience this faith is to know that human experience, dim and fragmentary as it is, yet sounds the utmost depths of reality.¹²⁸ To experience this faith is "to know that detached details merely in order to be themselves demand that they should find themselves in a system of things: to know that this system includes the harmony of logical rationality, and the harmony of aesthetic achievement. . . ." ¹²⁹ The aesthetic-religious sense of Deity has been discovered to be the intuited evidence disclosing the universe as a harmony of logical rationality and aesthetic achievement.

This chapter has tried to show a positive connection

127 SMW, p. 27.

128 SMW, p. 27.

129 SMW, pp. 27-28.

between the function of speculative reason and the sense of Deity. Whitehead indicated that his philosophy is a pragmatism which seeks the self-evidence which is a necessary part of civilized experience and of what is meant by civilization. There is a strong moral intuition that the good life of civilization is speculative understanding for its own sake. This intuition is unlikely to occur in primitive man and the primitive side of civilized man. For they lack the intuition of the universe as a complex of interconnected facts that stimulates man to understand the facts by analyzing and discriminating the connections; they lack the intuition into the presuppositions of a coherent rationalism. In attending to his primary experience, civilized man finds that the basis of rational religion is the religious intuition, the sense of Deity. This is the experience of the interconnected values of self, others, and the whole of the world as derivative from the valuable interconnections of its members and as necessary for the continued existence of value. This is an evidence which Whitehead has systematized in his metaphysics; but he has also described it independently, since it is a primary experience. This evidence is the presupposition of civilized experience for Whitehead both in its speculative and practical (moral, aesthetic, and religious) aspects. It is relevant to speculative reason's function, since the sense of the interconnections of reality, stimulates man to analyze and identify the interconnections. The evi-

dence is also relevant to practical reason's function of achieving value, whether the value be moral-religious or aesthetic. The sense of the interconnected values of self, others, and the whole as preserving the values of self and others is for Whitehead the presupposition of man's moral-religious life and his aesthetic life. As the presupposition of speculative and practical reasons' functions, the sense of Deity is necessarily affirmed by man for Whitehead in any attempt to achieve the good of civilization which their functions seek.

This study continues to emphasize the connection between the function of speculative reason and the sense of Deity. As an evidence for the function of speculative reason, the sense of Deity should not be accepted apart from Whitehead's other defenses of his rationalism. In accord with his method of the working hypothesis, no evidence or theory should be accepted apart from the total evidence and theories of his philosophy. Thus the next chapter studies how Whitehead's defenses of speculative reason's function and the sense of Deity mutually supplement each other.

CHAPTER III

THE SENSE OF DEITY AND OTHER DEFENSES OF THE FUNCTION OF SPECULATIVE REASON AS SUPPLEMENTARY TO EACH OTHER

The purpose of this chapter is to study how the sense of Deity and other defenses of the function of speculative reason supplement each other. There are three main divisions to the chapter: first, Whitehead, Hume, and the sense of Deity; secondly, Rationalism, Irrationalism, and the sense of Deity; and thirdly, Whitehead, Dewey, and the sense of Deity. The general approach of each section is twofold. First, various defenses which Whitehead gives of speculative reason's function are described. Secondly, this chapter raises objections to those defenses and then shows how the sense of Deity can serve as an evidence answering these objections. However, the other defenses supplement the sense of Deity as a defense of speculative reason's function just as much as it supplements them. It will be pointed out that all these various defenses need to be fulfilled by the successful working out of a speculative understanding of all particular facts in terms of general principles. For Whitehead's method of the working hypothesis demands that the ideal of speculative reason

needs to be achieved with some success; otherwise it would be a worthless ideal for man's civilized life. However due to the imperfections of metaphysical systems, it is possible for man to lose hope in this ideal. Consequently, the appeal to the religious intuition is important for man to continue to have faith in the ideal of speculative reason.

A. Whitehead, Hume, and the Sense of Deity

Whitehead points out that "since the time of Hume, the fashionable scientific philosophy has been such as to deny the rationality of science. This conclusion lies upon the surface of Hume's philosophy."¹ For Hume holds that every effect is a distinct event from its cause and that neither the cause nor the effect discloses any information about the other.² Since any connections between cause and effect "must be entirely arbitrary, it follows at once that science is impossible, except in the sense of establishing entirely arbitrary connections which are not warranted by anything intrinsic to the natures either of causes or effects."³ Hume's position on the cause-effect connection constitutes a serious objection to Whitehead's position that the function of speculative reason is to understand all particular facts

1 SMW, p. 5.

2 SMW, pp. 5-6.

3 SMW, p. 6.

in terms of general principles. For if the connections between facts (causes and effects) are entirely arbitrary as Hume holds, then there would be no understanding of the connections between facts which could be expressed in general principles. However, Whitehead's position differs from Hume's on the experience and intelligibility of the cause-effect connection.

Whitehead analyzes the presuppositions involved in Hume's denial of the experience of the necessary connection of cause and effect. In Hume's theory of perception (experience), the mind is entirely wrapped up in the observation of the present moment. The mind is only conscious of its passively received sense-data in the present moment, and it is impossible for the mind to go behind the present moment in order to discover the causes of the presently observed sense-data.⁴ The assumption behind Hume's theory of experience is his theory of time as pure succession. Whitehead points out that this concept of time is easily held although it is a mistake. For the usual observations emphasize the discontinuity of outer temporal events. The correct view of time emphasizes the succession of our inner acts of experience and thence derivatively the succession of outer events perceived in those acts. This succession is the derivation of state from state, with the later state showing conformity to the

⁴ Whitehead, Symbolism, Its Meaning and Effect (New York: Macmillan, 1927) pp. 32-33.

antecedent.⁵ "Time in the concrete is the conformation of state to state, the later to the earlier; and the pure succession is an abstraction from the irreversible relationship of settled past to derivative present."⁶

Whitehead defends his view of time by distinguishing two kinds of perception: presentational immediacy, the awareness of sense-data which Hume has pointed out; and causal efficacy, the awareness of a reality's derivation from its immediate past-environment.⁷ Whitehead agrees with Hume's analysis of sense-data as vivid, precise, and barren. There is no directly perceivable connection of the qualities perceived with the intrinsic characters of the objects qualified.⁸ However, Whitehead argues that man experiences efficient causality in the mode of perception named causal efficacy. This is a primitive experience, the perception of conformation to realities in the environment. This perception of the pressure from the world of things is especially strong when vivid sense-perception in the mode of presentational immediacy is weakened as in a strong emotional state.⁹ A strong

5 Ibid., pp. 34-35.

6 Ibid., p. 35.

7 Ibid., p. 31.

8 Ibid., pp. 23-25.

9 Ibid., pp. 43-44.

emotion such as fear involves the experience of retreating from the object feared, of being affected by the action or threatened action of the object feared. One cannot retreat from mere subjectivity since subjectivity is what one carries with himself. Consequently, the emotion of fear is not an experience of man's own subjectivity simply, nor an experience of sense-data, but rather a clear recognition of a causally efficacious object affecting man.¹⁰ This experience of causal efficacy is confirmed by the practical beliefs of man. In practice, Whitehead points out, we never doubt the conformation of the present to the immediate past. "The present fact is luminously the outcome from its predecessors, one quarter of a second ago. . . . If dynamite explodes, then present fact is that issue from the past which is consistent with dynamite exploding."¹¹ It is clear to Whitehead that man does experience efficient causation and that Hume is therefore wrong to deny any experience of the cause-effect relationship.

Accordingly, Whitehead directly denies Hume's doctrine of simple occurrence whereby a moment of time simply occurs with no intrinsic connection with the past:

I directly deny this doctrine of 'simple occurrence.'

10 Ibid., p. 45.

11 Ibid., pp. 45-46.

There is nothing which 'simply happens.' Such a belief is the baseless doctrine of time as 'pure succession.' The alternative doctrine, that the pure succession of time is merely an abstract from the fundamental relationship of conformation, sweeps away the whole basis for the intervention of constitutive thought, or constitutive intuition, in the formation of the directly apprehended world. Universality of truth arises from the universality of relativity, whereby every particular actual thing lays upon the universe the obligation of conforming to it. Thus in the analysis of particular fact universal truths are discoverable, those truths expressing this obligation.¹²

Hume's theory of time as sheer succession disconnects cause and effect. His theory thereby attacks man's belief in an order of nature. However, Whitehead has a notion of time as conformation whereby every particular actual thing lays upon the universe the obligation of conforming to it. His theory of time defends the intelligibility of modern man's instinctive belief in an order of nature. Every particular fact can be conceived as part of an orderly world since each fact exemplifies the general principle of efficient causation. For the notion of time as conformation means that every particular actual thing lays upon the universe the obligation of conforming to it, of being causally affected by it. This analysis constitutes a defense of the function of speculative reason. For the analysis of particular fact can disclose universal truths.

It is important to point out that in the last cited text Whitehead rejects the intervention of constitutive thought (such

¹² Ibid., pp. 38-39.

as Kant's categories) and of constitutive intuition (such as Kant's forms of sensibility, space and time) and thereby rejects Kant's Critique of Pure Reason. Whitehead points out that Kant followed Hume in assuming the radical disconnection of sense impressions qua data, but Whitehead holds that such disconnection occurs only in perception in the mode of presentational immediacy.¹³ In perception in the mode of causal efficacy, there is experienced the connection, the necessary relationship, of the immediately past environment as causally affecting the present experiencing subject. In the feeling-experience of time as conformation, that is, in the feeling-experience of efficient causation, Whitehead has his basic rejection of Kant's form of sensibility, time, and of his a priori categorization of time into the efficient causation principle as limited to the phenomenal world. For perception in the mode of causal efficacy is not an experience of merely one's own subjectivity but rather of the objective world as causally affecting the subject. Whitehead's answer to Kant's position, however, needs to justify that this experience of the objective world as causally affecting the experiencing subject can be conceived as disclosing the noumenal, i.e., the intelligible, world. The problem is how can Whitehead defend the principle of efficient causation as intelligible in its own right, i.e., as disclosing

13 PR, pp. 172-173.

the noumenal, intelligible world.

Whitehead does defend the principle of efficient causation as intelligible in its own right. He states "'the principle of efficient, and final causation'" as the "'ontological principle'": "This ontological principle means that actual entities [the final real things of which the world is made up] are the only reasons; so that to search for a reason is to search for one or more actual entities."¹⁴ Whitehead defends the ontological principle by attempting to reduce it to the principle of contradiction. "It is a contradiction in terms to assume that some explanatory fact can float into the actual world out of nonentity. Nonentity is nothingness. Every explanatory fact refers to the decision and to the efficacy of an actual thing."¹⁵ Whitehead holds that entity should receive an explanation or reason for its entity from entity. For if entity did not receive an explanation from entity, entity would be explained by nonentity, which is absurd. Nonentity is nothingness, and nothingness explains nothing. It is clear for Whitehead that entity cannot be explained by, that is, reduced to nonentity but rather that entity should be explained by entity itself. As so stated, the ontological principle defends the function of speculative reason, for all particular entities should be intelligible in terms of the entities themselves.

¹⁴ PR, pp. 36-37, Category of Explanation, xviii.

¹⁵ PR, p. 73.

Veatch's analysis of another formulation of Whitehead's ontological principle is helpful in understanding Whitehead: "Apart from things that are actual, there is nothing, nothing in fact or in efficacy' PR, p. 647."¹⁶ Veatch defends this as a "metaphysical principle which is simply . . . its own reason for being true. For that anything should in fact be or be causally efficacious without actually being—this is simply unthinkable; it is even self-contradictory."¹⁷ Veatch calls such a metaphysical truth analytic, i.e., evident in and through the statement itself and not through anything else. On the one hand, this meaning of analytic agrees with Kant in that the predicate is analytically contained in the subject. In the statement, 'Anything that is a fact or that is causally efficacious must be an actual thing (an actual entity),' the predicate is contained in the notion of the subject. But on the other hand, this meaning of analytic disagrees with Kant in that the statement is a factual truth. For if it is known that something is causally efficacious, this causally efficacious thing is known as an actual fact (an actual entity). The knowledge that it is an actual entity is more than the knowledge that it is causally efficacious.¹⁸

16 Henry Veatch, "The Truths of Metaphysics," The Review of Metaphysics, XVII, no. 3 (March, 1964) p. 375.

17 Ibid., pp. 375-376.

18 Ibid., p. 379.

Two defenses of the function of speculative reason have been described, (1) Whitehead's notion of time as the conformation of the present to the efficient causality of the past and (2) his ontological principle. Difficulties may be raised about these defenses which can receive an answer from the sense of Deity as an evidence.

(1) Against Whitehead's notion of time the difficulty may be raised that Whitehead has generalized the notion of time as conformation. The question needs to be asked: what justifies the generalization? Whitehead's answer is that universality of truth arises from the universality of relativity, whereby every actual thing lays upon the universe the obligation of conforming to it.¹⁹ But this answer is not sufficient. For the universality of relativity is precisely what is in question. Whitehead could claim that it is probable that every particular actual thing causally affects the universe. But this suggestion of probability would not justify as necessarily true that there is so complete an order of nature that the function of speculative reason is to understand all particular facts as illustrating the same general rational principles.

The sense of Deity as the Totality which preserves the values realized in the universe and which shares its preservation

19 Whitehead, Symbolism, pp. 38-39.

helps to complete the above defense of speculative reason's function. For this sense of the Totality is an evidence disclosing that it is necessary that every particular actual entity causally affects the universe. On the basis of this evidence, it is necessarily true that there is so complete an order of nature that the function of speculative reason is to understand all particular facts as illustrating the same rational principles.

(2) The defense of the function of speculative reason by the ontological principle's reduction to the principle of contradiction is successful only if one grants that all particular facts are intelligible in terms of general principles. If every particular fact is intelligible, then entity cannot be reduced to nonentity; but if every fact is not intelligible, it does not follow that entity cannot be reduced to non-entity. It is clear that the attempted reduction of the ontological principle to the principle of contradiction is only a restatement in different words of the function of speculative reason.

Moreover, Sherburne unwittingly raises a further difficulty in stating that Whitehead's "system requires God in the first place simply to preserve the ontological principle."²⁰ The

²⁰ Donald Sherburne, A Whiteheadian Aesthetic (New Haven: Yale University Press, 1961) pp. 36-37.

difficulty is that, on the one hand, the ontological principle is used as a partial basis of the proof of God's existence, but, on the other hand, the system requires God to preserve the truth of the ontological principle.²¹ Veatch's defense of the ontological principle is inadequate because the formulation which he quotes and explains as self-evident is taken out of context. The full text is: "By this recognition of the divine element the general Aristotelian principle is maintained that, apart from things that are actual, there is nothing—nothing either in fact or in efficacy."²² The problem remains, how can one affirm that the ontological principle is true without qualification unless one knows that God, the divine element, exists as the basis of metaphysical reasons?²³

The key to answering these difficulties by the sense of Deity is found in Whitehead's statement that the ontological prin-

21 Cf. PR, p. 48 for one statement of how the ontological principle together with the analysis of temporal actual entities require for Whitehead the conclusion that a non-derivative, eternal actual entity exists.

22 PR, p. 64.

23 PR, p. 28: "The 'ontological principle. . . . [is] the principle that the reasons for things are always to be found in the composite nature of definite actual entities—in the nature of God for reasons of the highest absoluteness, and in the nature of definite temporal actual entities for reasons which refer to a particular environment. The ontological principle can be summarized as: no actual entity, then no reason."

ciple constitutes "the first step in the description of the universe as a solidarity of many actual entities."²⁴ Stokes explains that "'solidarity' means that the universe is an organic whole."²⁵ The plurality of actual entities produces a single, common result which is the universe without the entities losing their individuality.²⁶ Stokes points out that this "notion of the unity in order of the universe is Whitehead's articulation of Wordsworth's nature in solido. Its technical formulation is Whitehead's ontological principle."²⁷ Stokes explains that:

"This principle expresses Wordsworth's experience of 'that mysterious presence of surrounding things, which imposes itself on any separate element that we set up as an individual for its own sake.' /SMW, p. 121/ It involves the discovery that the universe is made up of entwined interconnected entities that are suffused with modal presence of others. Accordingly, the whole of nature is involved in the tonality of each actual entity."²⁸

Stokes's comments on the ontological principle need to be supplemented by the discussion of the sense of Deity. Only the sense of Deity, the sense of the interconnected values of self,

24 PR, p. 65.

25 Walter Stokes, "Whitehead's Challenge to Theistic Reality," The New Scholasticism, XXXVIII, no. 1 (Jan., 1964) p. 2.

26 Ibid., pp. 2-3; cf. PR, p. 254.

27 Stokes, op. cit., p. 3.

28 Ibid.

others, and the whole universe, establishes in one intuitive act that actual entities constitute a universe. Other intuitions can establish the interconnections of some actual entities as causally intertwined, but not of all actual entities as causally intertwined. The text which Stokes cites from Science and the Modern World emphasizes the interconnections of some actual entities as causally intertwined with others, but not of all actual entities as causally intertwined. There is another text in the same chapter which definitely emphasizes the Totality, the whole of the universe: "Both Shelley and Wordsworth emphatically bear witness that nature cannot be divorced from its aesthetic values; and that these values arise from the cumulation, in some sense, of the brooding presence of the whole onto its various parts."²⁹ The experience of the brooding presence of the whole which gives rise to values has been explicated by Whitehead as the sense of Deity, the sense of the interconnected values of self, others, and the whole universe. Consequently, the ontological principle should be recognized as Whitehead's way of starting to express in a systematic metaphysics the solidarity of the universe which the sense of Deity establishes as an unsystematized, intuited evidence.

Because the sense of Deity discloses Deity as the ultimate source of potential values and as the ultimate end or preserving unification of values realized in the universe, this ex-

perience is a defense of the ontological principle.³⁰ For reasons are in fact known to be found for entity in entities themselves, especially in that entity named Deity. The problem of the circular argument raised against Veatch with regard to the knowledges of the ontological principle and of God may be solved in the following way. The sense of Deity is a presystematic evidence which Whitehead will not let any theory explain away or deny.³¹ It is an evidence which defends the basic presupposition of any attempt at metaphysics, namely, the presupposition of the function of speculative reason that all actualities are intelligible. This point of departure in metaphysics, the presupposition of the function of speculative reason, however, can receive other defenses. These other defenses are more easily stated due to their clarity, e.g. the clarity of the reduction of the ontological principle to the principle of contradiction. The formulation of the function of speculative reason in terms of the ontological principle is part of Whitehead's attempt to develop the technical principles of his metaphysics. Such principles allow him to examine the evidence of all of man's experience and thereby to clarify the relationship between Deity and the world in a systematic metaphysics. The clarification does not prove what was previously unknown, namely, that

30 Cf. chapter 3, p. 33.

31 RM, pp. 79-80.

Deity exists. For the basic presupposition of metaphysics, namely, the presupposition of the function of speculative reason, relies ultimately on the sense of Deity.

Before an examination of how the sense of Deity supplements defenses of speculative reason, it is appropriate to point out that the context of the description of the sense of Deity includes a contrast of Whitehead's notion of experience with Hume's notion of experience. Whitehead points out that Hume's fundamental assumption is that sensa are primary since they are clear and definite. These sensa disclose no experience of the necessary connection of cause and effect. All of man's emotions and intentions are merely concerned with sensa. It is this part of Hume's doctrine which Whitehead denies. Whitehead attempts to base his own epistemology on the self-evidence of experience just as Hume did. Hume's mistake is to take clear-cut experience of the human adult as the primary fact of human experience. Obscurity is the primary fact of human experience; clarity is something secondary. The unborn child in the womb lives and has experience, as shown in his reactions to stimuli. Yet his experience can hardly be said to be clear-cut even though he definitely lives in the obscure-feeling context of and in reaction to the nourishing womb of his mother. Clear-cut sensations help to make us human but they do not make us live.³²

32 MT, pp. 152-158.

What Whitehead is suggesting here but not identifying is his distinction between perception in the mode of presentational immediacy and perception in the mode of causal efficacy. The former does not reveal the cause-effect connection, whereas the latter does reveal it as a fundamental fact of reality. It is by perception in the mode of causal efficacy that there occurs the "primary experience which lies below and gives its meaning to our conscious analysis of qualitative detail," that is, to our conscious perception in the mode of presentational immediacy.³³ This primary experience establishes an a priori structuring of any experience in that it universally accompanies every experience. This primary experiential structuring of experience is a sense of Something that matters in a three-fold scheme, Totality, Externality, and Internality. Any experience of the world will assume as obvious the Totality of actual fact, the Externality of many facts, and the Internality of the one experiencing. This three-fold scheme is the background of metaphysical necessities which any experience of the world presupposes.³⁴

³³ MT, p. 158. In identifying the primary experience (which lies below the conscious analysis of qualitative detail) as the sense of Deity, the sense of the interconnected values of self, others and the universe as a whole, Whitehead is identifying the metaphysical factors of any experience, of any actual entity. For 'act of experience' and 'actual entity' are two names for one and the same metaphysical reality, the final facts of which the universe is composed. PR, p. 28.

³⁴ MT, p. 159.

No matter how abstract the selections of consciousness may become in the mode of presentational immediacy, there is always present in consciousness an instinct to see how these selections, i.e., abstractions, are connected with the totality revealed in perception in the mode of causal efficacy. Whitehead illustrates this instinct, which is the reverse of abstraction, with a consciousness, first attending to a sensory detail in the mode of presentational immediacy, and then attempting to see how this detail fits into a concrete whole such as a picture. However the point made is the general one that consciousness always tends to see how an abstraction fits into the totality of immediate experience.³⁵

This instinct is present in consciousness because there is always a dim sense of the realities from which selective abstractions are made. The abstractions arise from the primitive stage of discrimination in experience, namely, from perception in the mode of causal efficacy, in which the concrete totality of value experience is known. The process of abstraction from the totality points back to the totality.³⁶ However, Whitehead points out that:

. . . consciousness, which is the supreme vividness of experience, does not rest content with the dumb sense of impor-

35 MT, pp. 169-170.

36 MT, p. 170.

tance behind the veil. Its next procedure is to seek the essential connections within its own conscious area. This is the process of rationalization. This process is the recognition of essential connection within the apparent isolation of abstracted details. Thus rationalization is the reverse of abstraction, so far as abstraction can be reversed within the area of consciousness.³⁷

Consciousness does not rest content with a dim awareness of importance as somehow a fundamental experience of reality. Rather consciousness tries to elicit that awareness as much as possible. A vivid apprehension of reality as valuable is the sense of Deity, the interconnected values of self, others and the whole. This evidence defends the function of speculative reason but does not give a complete speculative understanding of the metaphysical necessities underlying all particular actualities. Such a complete speculative understanding is to be achieved by the process of rationalization, which is the reverse of the process of abstraction. Abstraction is the process of selecting particular details from the totality; rationalization is the process of re-discovering the totality, the metaphysical necessities, underlying all particular details. Whitehead has expressed the function of speculative reason with the notion of 'rationalization' and has connected it with the sense of Deity. Rationalization is the process of criticizing abstractions: first, completing them by direct comparison with concrete intuitions of what is universal

37 MT, p. 170.

(metaphysically necessary) in all actualities; and secondly, harmonizing the abstractions and placing them in their proper order as abstractions.³⁸

In this section, two defenses of speculative reason's function have been studied, Whitehead's notion of time as perceived in the mode of causal efficacy and his ontological principle. These two defenses have been found to have assumptions which can be established by the sense of Deity. However, the evidence for those defenses also helps to support Whitehead's description of the sense of Deity. First, the notion of perception in the mode of causal efficacy explains how the past actual entities as temporal (Externality) and as eternally preserved in God's consequent nature (Totality) can be perceived as causally affecting the experiencing self (Internality). Secondly, the ontological principle's reduction to the principle of contradiction is one way of expressing the intelligibility of the sense of Something that matters in the three-fold scheme. For the sense of Something that matters, of the interconnected values of self, others, and the whole, is the sense "of existence for its own sake, of existence which is its own justification."³⁹

The importance of the ontological principle in the de-

38 SMW, pp. 126-127.

39 MT, p. 149.

fense of speculative reason can be developed further by an examination of Leclerc's interpretation of Whitehead's rationalism. It will be shown that Leclerc's argumentation needs to be supplemented by the sense of Deity.

B. Rationalism, Irrationalism, and the Sense of Deity

Leclerc notes that the attempt to fulfill the function of speculative reason "is the pursuit of rationalism to its fullest extent: it is the endeavour to discover the final 'reasons' for things. According to the ontological principle these reasons are to be discovered in 'the composite nature of definite actual entities.'"⁴⁰ Metaphysical reasons, reasons of the highest absoluteness, are to be found in God; cosmological reasons, reasons for particular environments, are to be found in the nature of temporal actual entities.⁴¹

In order to defend Whitehead's rationalism, Leclerc quotes the following text:

That we fail to find in experience any elements intrinsically incapable of exhibition as examples of general theory, is the hope of rationalism. This hope is not a metaphysical premise. It is the faith which forms the motive for the pursuit of all sciences alike, including metaphysics.⁴²

⁴⁰ Leclerc, Whitehead's Metaphysics, pp. 27-28.

⁴¹ PR, p. 28.

⁴² PR, p. 67.

Leclerc comments that the acceptance of the rational endeavour of trying to understand reality, whether in science or philosophy, involves the acceptance, tacit or explicit, of the function of speculative reason as an ideal. Any rational attempt to deny the ideal of rationalism would be self-contradictory.⁴³ For any rational attempt to deny the ideal of rationalism would be the acceptance of irrationalism, the acceptance of incoherence.⁴⁴ "Incoherence is the arbitrary disconnection of first principles."⁴⁵ Two first principles or explanations are arbitrarily disconnected in so far as no explanation can connect the two explanations and no explanation can be given as to why no explanation can be given. For to give an explanation for the impossibility of connecting two first principles would be to connect supposedly disconnected first principles. Therefore no rational defense can be given for irrationalism since a rational defense would make coherent and rational that which is supposedly absolutely incoherent and irrational.⁴⁶

Leclerc points out that irrationalism is "the denial that 'reasons' or general principles are attainable, either at

43 Leclerc, op. cit., p. 37.

44 Ibid., pp. 35, 37.

45 PR, p. 9.

46 Leclerc, op. cit., p. 35.

all [Positivism], or beyond a certain point—usually that which the special sciences happen to reach.⁴⁷ Whitehead has serious objections to both forms of irrationalism, Positivism and the limitation of speculation to science.

Whitehead offers one discussion of the Positivist position that no general explanations are possible at all, by examining the discovery of the planet Pluto. The discovery of Pluto was based on observed deviations of the orbits of the planets Uranus and Neptune from their calculated orbits. The calculation of orbits was based on the law of gravitation as followed by the then known planets and their effects on Uranus and Neptune. But their observed motions deviated from the predicted paths. The observed deviation in orbital path was described by a mathematical formula. At this point, prior to the discovery of Pluto, Whitehead points out that every positivist should have been completely satisfied.⁴⁸ "A simple description had been evolved which fitted the observed facts. They [the positivists] could now relapse into their unexplained persuasion that in the future these formulae would continue to describe the motions of Uranus and Neptune."⁴⁹ But one astronomer, Percy Lowell, was not satisfied; he remembered

⁴⁷ Ibid.

⁴⁸ AI, pp. 161-162.

⁴⁹ AI, p. 162.

the law of gravitation. He calculated the direction and magnitude of the vector component of acceleration as it would be caused by an imaginary point representing a planet moving round the sun in an elliptic path, even more remote than the orbit of Neptune. Lowell chose a path for this imaginary planet, so that the magnitude of the acceleration of Neptune varies as the inverse square of the distance between Neptune and the moving imaginary planet. His prediction that there is another planet was verified at the Lowell Observatory in Arizona.⁵⁰

Whitehead concludes from his discussion of the discovery of Pluto two points. First, Positivism has a truth to its doctrine that description is an essential aspect of scientific method. But secondly, scientific method does not involve only accurate description even though the description may be a generalized one such as the law of gravity. Man has the desire to obtain the explanatory description (the understanding) of the generalized description and the particular description of fact. Man desires an understanding of particular and general fact in terms of general principles which can justify the speculative extension of a generalized description, such as the law of gravity beyond actual, particular instances of observation. In attempting to find the explanatory description, scientific method is seeking to fulfill

50 AI, pp. 161-162.

the function of speculative reason.⁵¹

Whitehead carefully considers the other form of irrationalism besides Positivism, namely, the limitation of speculation to science. This second form of irrationalism claims that speculative understanding is a proper goal of science but not of metaphysics because the methodology of science has been successful but the methodology of philosophy has not been.⁵² Whitehead answers this rejection of metaphysics by showing that the objection presupposes that the method of philosophy is dogmatic.⁵³ He explains that philosophy "has been haunted by the unfortunate notion that its method is dogmatically to indicate premises which are severally clear, distinct, and certain; and to erect upon those premises a deductive system of thought."⁵⁴ Philosophy has been haunted so, suggests Whitehead, because Western philosophy was helped into being by the development of mathematics. In imitation of mathematics' deductive procedure, philosophers have tried for clear and distinct premises as the basis of a deductive system.⁵⁵

51 AI, p. 164.

52 PR, p. 20.

53 PR, p. 20.

54 PR, pp. 11-12.

55 PR, pp. 15-16.

Whitehead rejects such a concept of philosophy's method. Just as it is a mistake to believe that the foundations of mathematics are clear, distinct, and certain, so also it is a mistake to believe that the foundations of philosophy should be clear, distinct, and certain.⁵⁶ Whitehead holds that:

. . . the accurate expression of the final generalities is the goal of discussion and not its origin. . . .

. . . Metaphysical categories are not dogmatic statements of the obvious; they are tentative formulations of the ultimate generalities.

If we consider any scheme of philosophic categories as one complex assertion, and apply to it the logician's alternative, true or false, the answer must be that the scheme is false. The same answer must be given to a like question respecting the existing formulated principles of any science.⁵⁷

The point is that science does not have any special certitude which philosophy is lacking. Neither philosophy nor science should be viewed as dogmatic statements of the obvious but as tentative formulations of general principles. For it is not true that science has been succeeding for centuries, whereas philosophy has been failing for centuries. Both science and philosophy have had partial success in reaching their goals.

In defense of his understanding of science and philoso-

⁵⁶ PR, p. 12: Whitehead refers to his work coauthored with Bertrand Russell, Principia Mathematica; cf. MT, p. 144: The history of science is full of such examples of sciences bursting through the bounds of their original assumptions. Even in pure abstract logic as applied to arithmetic, it has within the last half century been found necessary to introduce a doctrine of types in order to correct the omissions of the original premisses."

⁵⁷ PR, pp. 12-13.

phy as having only partial success, Whitehead points out, "We no more retain the physics of the seventeenth century than we do the Cartesian philosophy of that century. Yet within limits, both systems express important truths."⁵⁸ The Galilean-Cartesian mechanistic concept of material bodies launched modern science on its triumphant career. The high point which this theoretical structure allowed science to attain is well symbolized by Newton.⁵⁹ Although science has gone beyond Newton's formulae, they were not false; rather they were unguardedly stated. Einstein's formulae are not false; rather they are unguardedly stated. We do not yet know the limitations of Einstein's formulae, but when they may be discovered they will constitute a yet more subtle limitation to Newton's formulae. Science does not start with clear and distinct elements in experience and proceed to elaborate these elements as premises with pure deduction. Rather it proceeds by tentative formulations of particular and general descriptions (speculative understandings). In this manner, science is successful in reaching some understanding of the world even though it cannot claim dogmatic finality of truth.⁶⁰

In a similar way, philosophy is successful. The seven-

58 FR, pp. 20-21.

59 AI, p. 145.

60 FR, p. 53.

teenth century mechanistic concept of nature has a partial truth which Whitehead tries to incorporate into his own philosophy. The mechanistic concept of nature has a consonance with common-sense observation. There are bits of matter in the universe; whether these bits of matter are dirt, rocks, drops of water, or planets, they are simply bits of matter. These bits of matter are the same throughout any stretch of time or even in an instant of time. The relations between these bodies are simply spatial relations which can be changed only by local motion. This concept of nature was to be the presupposed support supplying the terms in which the answers were to be found to all further questions such as about the meaning of life, mentality, and the interrelations of matter, life, and mentality. Whitehead has no doubt that this concept of nature expresses large, all-pervading truths about the world, but he questions how fundamental these truths may be.⁶¹ He argues that the mechanical concept of nature which denies the meaningfulness of final causality cannot explain the emergent evolution of life and mentality, especially of man.⁶² He concludes with a concept of nature which would explain emergent evolution and at the same time explain the downward, mechanical trend of nature.⁶³ In

61 MT, pp. 175-177.

62 Gf., ch. 1, pp. 12-14.

63 FR, pp. 3-34.

this way, Whitehead himself shows how a philosopher incorporates the truths expressed in other philosophies and shows the limitations and qualifications of those truths. He shows that the history of philosophy manifests some success in fulfilling the function of speculative reason.

Since philosophy shows this success, the objection is ill-founded which attacks as unsuccessful, philosophy's attempt to fulfill the function of speculative reason.

Whitehead further defends speculative philosophy as necessary for the criticism and evaluation of scientific interpretations of reality. Interpretation of reality did not begin with philosophy. Philosophy is the search for more adequate criticism and for more adequate justification of the interpretations which we employ in science and religion and even in philosophy itself.⁶⁴ For philosophy is never a finished product but rather a way of life, an attitude of mind towards doctrines never completely understood.⁶⁵

No knowledge is ever completely understood since consciousness is always selective of a few elements from the fullness of experience.⁶⁶ Whitehead explains that our disciplined know-

⁶⁴ PR, p. 22.

⁶⁵ MT, pp. 233-234.

⁶⁶ PR, p. 22; MT, p. 168.

ledges are a combination of the Observational Order (direct discriminations of particular observations) and the Conceptual Order (a general way of conceiving the Universe). There is no point in human history at which we can say that man was having pure observations. The Observational Order is always interpreted in terms of the Conceptual Order.⁶⁷ Moreover, the Conceptual Order dictates the Observational Order to a great extent; that is, theory dictates what evidence to look for and how to interpret the sporadic observations of evidence. One example is found in Hume's philosophy. If we try to find in the Observational Order direct evidence of the interconnectedness of things, we will not succeed, Whitehead points out, if we follow Hume. On Hume's theory, the only data originating reflective experience are sense impressions. Examining such sense-data, we find that no one sense-datum discloses in itself any information as to any other sense-datum. Therefore, on Hume's theory, there is no direct evidence for the interconnectedness of things.⁶⁸ Hume's theory has dictated what evidence to look for!

However, not only does theory dictate what evidence to look for and how to interpret it, but it is also true that the Observational Order itself is selective. The mode of perceptive ex-

67 AI, pp. 198-199.

68 AI, p. 283.

perience named presentational immediacy (the awareness of sense-impressions) is usually dominant in man's consciousness. This mode of perception does not disclose the interconnectedness of things. The other mode of perceptive experience named causal efficacy (the awareness of being affected by other realities in the universe) only becomes dominant to man in primitive experiences such as strong emotions. This mode of perception does disclose the interconnectedness of things. How has Whitehead become aware of this evidence of interconnectedness? On the one hand, he has done so through his insight that theory is only a working hypothesis due to the fact that theory dictates what evidence to look for and how to interpret it. Thereby Whitehead was aware that a theory other than Hume's could have been possible which would allow other evidence. On the other hand, Whitehead has been able to find this evidence of interconnectedness because he has tried to be open to the fullness of experience. Therefore Whitehead suggests two ways of correcting the deficiencies in man's interpretation and awareness of the Observational Order. First, novel concepts suggest novel possibilities of observational discrimination. That is to say, novel theories suggest novel possibilities of evidence. Secondly, novel observations help to modify old theories.⁶⁹

69 AI, pp. 198-199.

In the evaluation of Conceptual Orders and Observational Orders, philosophy should especially consider the selectivity involved in both science and religion. Whitehead points out that there is a grave divergence between science and religion in their respective emphasis of different aspects of experience. Religion is concerned with the harmony of rational thought with the person's reaction to the percepta from which experience originates. But science is concerned with the harmony of rational thought with the percepta themselves apart from the meaning and value of the person perceiving. By insisting on philosophy's close relations with religion and with science, natural and sociological, Whitehead intends to free philosophy once and for all from the objection that it is useless speculation.⁷⁰

It is the function of speculative reason to harmonize, refashion, and justify man's divergent theories and intuitions as to the nature of things, especially those from religion and the sciences. Speculative reason has to insist on the scrutiny of the ultimate ideas and on the retention of all the evidence in attempting to understand all particular fact in terms of general principles. In Whitehead's view, the attempt to fulfill the function of speculative reason is the most effective of all the intellectual pursuits. Speculative reason builds cathedrals before the workmen

70 PR, p. 23.

have moved a stone, and it destroys them before the elements have worn down their arches. Speculative reason is the architect of the buildings of the spirit, and it is also their solvent. Speculative reason works slowly. Thoughts lie sleeping for ages; and then, apparently suddenly, mankind finds that they have embodied themselves in the lives and institutions of man.⁷¹

Speculative reason's function is to criticize and evaluate the selective abstractions of the Observational and Conceptual Orders in two ways. First, speculative reason should harmonize abstractions by assigning to them their right relative status as abstractions.⁷² In this way, speculative reason avoids the fallacy of misplaced concreteness, which, for example, seventeenth century mechanistic science committed in neglecting the degree of abstraction involved in its consideration of reality as simple bits of matter.⁷³ Secondly, speculative reason should complete abstractions by direct comparison with more concrete intuitions of mankind penetrating into what is universal in concrete fact.⁷⁴

71 SMW, pp. ix-x.

72 SMW, pp. 126-127.

73 PR, p. 11; SMW, pp. 75, 85.

74 SMW, pp. 126-127; it is significant that Whitehead appeals to the testimony of the great poets as very important for philosophy: "Their survival is evidence that they express deep intuitions of mankind penetrating into what is universal in concrete fact." The significance of this emphasis on aesthetic experience is developed by Whitehead in his description of the religious intuition as the sense of Deity.

Leclerc's interpretation of Whitehead's rationalism has been described and completed by a discussion of Whitehead's rejection of two forms of irrationalism, Positivism and the limitation of speculative understanding to science. The difficulty raised against the ontological principle may also be raised against Leclerc's interpretation of Whitehead's rationalism. It may be granted that one who accepts rational and coherent explanation cannot give a rational explanation of the irrational and incoherent, but the difficulty is that it is not clear why one should accept rational explanation. The positing of irrationalism and incoherence is irrational only for one who accepts Whitehead's concept of the function of speculative reason. He himself points out that "it is always possible to work oneself into a state of complete contentment with an ultimate irrationality. The popular positivistic philosophy adopts this attitude."⁷⁵

Consequently, Leclerc's interpretation of Whitehead's rationalism needs to be completed by Whitehead's own rejection of irrationalism in Positivism and the limitation of speculative understanding to science. Whitehead's rejection of irrationalism may be accepted. He has shown that science does involve more than description since it also involves explanatory description (understanding). Also, he has shown that an evaluation of the special

75 MT, pp. 202-203.

sciences' selectivity in knowledge of the world is needed and that philosophy should do the job of harmonizing abstractions. But the question may be raised whether or not Whitehead has shown that it is the function of speculative reason to complete the abstractions of science by comparing them with concrete intuitions of the universe which reveal what is universal in all facts? In view of the selectivity of science, some discipline is needed which evaluates that selectivity. But should philosophy assume that its function is to understand all particular facts as intelligible in terms of general principles? In view of Whitehead's understanding of science, the assumption of the function of speculative reason as the ideal of reason appears very plausible. For just as science understands the general principles of a particular epoch of the world, so also the reflective thought which evaluates scientific explanations' selectivity should do so in terms of general principles which apply to all possible epochs and facts of the world. Whitehead assumes the function of speculative reason as an ideal to be fulfilled. This ideal of rationalism is the hope that we fail to find in experience any elements intrinsically unintelligible in terms of general principles. However, it is clear that the plausible assumption of the ideal of speculative reason is not a necessary justification of this ideal.

However, Leclerc's interpretation of Whitehead's rationalism must be accepted as fundamentally correct. For Whitehead does say that faith in reason "does not embody a premise from

which metaphysical theory starts; it is an ideal which is seeking satisfaction. In so far as we believe that doctrine, we are all rationalists."⁷⁶ Leclerc's interpretation has defended Whitehead's faith in reason without making it a premise from which metaphysical theory starts. Leclerc has taken Whitehead at his word and tried to make sense out of it. What Leclerc has said is fundamentally consistent with Whitehead's faith in reason and his rejection of Positivism and the limitation of speculative understanding to science.

However, this chapter has shown that the ontological principle, one of Whitehead's fundamental metaphysical premises, is basically a formulation of the function of speculative reason. Consequently, Leclerc should have found an inconsistency in Whitehead's statement that faith in reason's speculative function is not a metaphysical premise. The reason that Leclerc did not find an inconsistency is primarily that the basic text of Whitehead which he commented on was quoted out of context.⁷⁷ Leclerc failed to consider the connection of the ideal of speculative reason with religious intuition. The religious intuition discloses the sense of Something that matters, the sense of the interconnected values of self, others, and the whole, the sense of existence for its

⁷⁶ PR, p. 67.

⁷⁷ Full text is quoted in chapter 2, p. 62.

own sake, the sense of existence which is its own justification. This intuited evidence answers the difficulty raised against Leclerc's interpretation of Whitehead's rationalism, namely, it is not clear that one should accept rational explanation, the function of speculative reason. One should accept rational explanation of reality as the ideal of speculative reason because the sense of Deity is the sense of existence which is its own justification. On the one hand, this intuited evidence complements the attempts at justifying the function of speculative reason by rejecting both Positivism and the limitation of speculative understanding to science. But on the other hand, Whitehead's rejection of these two forms of irrationalism complements the sense of Deity as a defense of the function of speculative reason. The examination of scientific explanation shows that the scientist is seeking a speculative understanding of reality and that his selectivity in knowledge, as well as the selectivity of other knowledges, needs to be harmonized and criticized by speculative philosophy's intuitions of what is metaphysically necessary in all facts.

C. Whitehead, Dewey, and the Sense of Deity

The previous section has shown how Leclerc's interpretation of Whitehead's rejection of irrationalism and the sense of Deity are mutually supplementary defenses of the function of speculative reason. This section will show how Whitehead's rejection of Dewey's interpretation of speculative philosophy and the sense

of Deity are mutually supplementary defenses of the function of speculative reason.

Dewey attempts to show how Whitehead's concept of speculative philosophy can be given an empiricist-pragmatic interpretation. Dewey points out that the task of philosophy for Whitehead is to frame descriptive generalizations of experience. Dewey as an empiricist agrees with this without reservation especially since Whitehead emphasizes that elucidation of immediate experience is the sole justification for any thought.⁷⁸ Although Whitehead calls the method of philosophy Rationalism, Dewey argues that Whitehead's Rationalism is not the Rationalism with which empiricism is at odds. This latter Rationalism is concerned not with descriptive generalization but ultimately with a priori generalities from which the matter of experience itself can be derived. However, Whitehead's Rationalism emphasizes not a priori generalities but the immediately existent actual entities by the ontological principle. "These actual entities," he says, "are the final real things of which the world is made up. There is no going be-

⁷⁸ John Dewey, "Whitehead's Philosophy," The Philosophical Review, XLVI, no. 2 (Jan., 1937) p. 170; PR, p. 6. At the winter meeting of the Eastern Division of the American Philosophical Association in 1936, John Dewey and Whitehead met for a colloquium on Whitehead's philosophy. Dewey offered an interpretation of Whitehead's speculative philosophy, and Whitehead responded to Dewey's paper.

hind actual entities. They are the only reasons for anything."⁷⁹

Dewey does admit that Whitehead wants the descriptive generalizations to form a coherent, logical, necessary system of general ideas which can interpret every element of experience.⁸⁰ This concept of speculative reason makes Whitehead's Rationalism more like traditional Rationalism, but Dewey says that an empiricist should agree in proceeding "as logically as possible, striving to present findings that are coherent, that are even 'necessary', if the necessity in question be that of close-knit relation to one another without omissions and superfluities in the generalized descriptions of experience. . . ."⁸¹

Dewey's empiricist-pragmatic interpretation of Whitehead's concept of philosophy proposes a genetic-functional method for reason. This method is closely allied to the method of the natural sciences. Man's reason or thinking occurs because of some problem occurring in his experience-nature. Ideas that arise in the problem context emerge originally as suggested solutions. These ideas are not something to be known in themselves; rather they are instruments with which the problematic situation may be resolved. An idea is only something to be used in controlling and

79 Dewey, loc. cit.; PR, p. 27.

80 Dewey, loc. cit.; PR, p. 4; AI, p. 285.

81 Dewey, op. cit., p. 171.

ordering the materials and processes of experience; an idea is not something to be known and appreciated as a speculative penetration into ultimate reality.⁸²

Dewey indicates that another interpretation of Whitehead's concept of philosophy is possible which is allied with traditional Rationalism. This interpretation views the method of reason in philosophy as similar to the procedure of the mathematical logician. Reality itself is presupposed to have certain necessities in its make-up. The generalized description of these necessary elements should be statable in a succinct system of definitions and postulates. The deductive interweaving and explanation of these definitions and postulates should result in a logical, coherent, necessary system of ideas which can interpret every element of experience.⁸³

Dewey contrasts the genetic-functional concept of reason with the intuitional-structural concept of reason of traditional Rationalism. The genetic method of reason treats ideas and experience not as something to be known by immediate insight, but as something to be used to make experience more fruitful and meaningful. In contrast, the intuitional method of reason treats experience as something to be known by speculative insight so that a

82 Ibid., p. 175.

83 Ibid., p. 174.

general scheme of the universe can be formulated. The functional method of reason understands ideas as instruments with which the functioning processes of experience can be made more valuable. In contrast, the structural method of reason understands ideas as expressive of the intelligible structure of reality.⁸⁴

Dewey asks Whitehead to say which concept of reason is primary in Whitehead's philosophy, the genetic-functional or the intuitional-structural concept. Dewey wants him to say that practical reason's genetic-functional method is a more fundamental concept than speculative reason's intuitional-structural method.⁸⁵

In chapter one, we have seen Whitehead define the function of reason as primarily practical, namely, (i) to constitute final causes, that is, to live; (ii) to emphasize final causes, that is, to live well; and (iii) to criticize final causes, that is, to live better.⁸⁶ However, in his direct reply to Dewey, Whitehead refuses to emphasize practical reason to the resulting exclusion of speculative reason and metaphysics. The evolutionary process of the world not only requires the genetic-functional concept of reason but also requires the intuitional-structural concept of reason in order to understand the ultimate principles

84 Ibid., p. 175.

85 Ibid., pp. 175, 177.

86 Cf. above, ch. 1, pp. 13-18.

of existence which express the necessary connections within the changing world.⁸⁷ As one example of such a necessary truth, Whitehead turns Dewey's argument around and agrees with him, "The compound word 'genetic-functional' means an ultimate metaphysical principle from which there is no escape."⁸⁸

The fundamental answer which Whitehead gives to Dewey to show the possibility of metaphysical statements is an analysis of mathematics and its relationship to the world. Whitehead's direct response to Dewey can be best understood by discussing it with two other defenses of metaphysical knowledge: (1) Whitehead considers how the togetherness of things in one universe requires general conditions such as those expressed in mathematics; and (2) he considers the proposition, 'one and one make two,' as an example of a metaphysical proposition. (3) His direct response to Dewey is a suggested comparison of the propositions of algebra with those of metaphysics.

(1) Whitehead considers how the togetherness of things in one universe requires general conditions such as those expressed in mathematics. Pure mathematics is not a science devoted simply to the exploration of quantity and number, but rather it is thought moving in the sphere of complete abstraction from any par-

⁸⁷ Whitehead, "Remarks," The Philosophical Review, XLVI, no. 2 (Jan., 1937) p. 179.

⁸⁸ Ibid., p. 181.

ticular instance of what it is talking about.⁸⁹ Pure mathematics is the realm of complete and absolute abstraction. "All you assert is, that reason insists on the admission that, if any entities whatever have any relations which satisfy such-and-such purely abstract conditions, then they must have other relations which satisfy other purely abstract conditions."⁹⁰

Whitehead argues that the togetherness of many things in an overall unity requires an aesthetic harmony (a system) of general conditions. For in order to have such an overall unity, the many things must be harmoniously related. The general conditions of this overall unity must themselves be harmoniously related, since otherwise there would be no overall unity. This aesthetic harmony of general conditions is what reason tries to discover. This aesthetic harmony of many realities in one overall unity and of the general conditions is the primary article of metaphysical doctrine. For the aesthetic harmony means that reason will not be disappointed in its search for the general conditions that apply to that one overall unity.⁹¹

The general conditions which apply to the overall unity will necessarily apply to all the many realities that are unified

89 SMW, pp. 31-32.

90 SMW, pp. 31-32.

91 SMW, p. 40.

in or connected with that unity. If there is a reality which is not connected with that unity, then no statement can be made about it except that man is in ignorance about it or its possibility. This qualification of ignorance about a supposedly existing reality unconnected with the overall unity of an experiential moment for man is not a limitation upon man's ability to know metaphysical truths. Rather, this qualification is the basis for Whitehead's assumption that the full universe discloses itself to man's experience with every element in that universe entering into the harmony of that experiential unity. It is impossible to deny this assumption. For it is impossible to know an entity supposedly unconnected with experience without thereby connecting it with that experience.⁹² "Apart from the experiences of subjects there is nothing, nothing, nothing, bare nothingness."⁹³ Therefore, Whitehead argues that the subject can discover in his experience truths that apply to all realities. The only realities which man can know about are those which relate themselves to man's experiential unity. Those realities which do relate themselves to man's experience must have the same general conditions (essence) as man's experience since its unity requires an aesthetic harmony of general conditions. What is not in any way related to the uni-

92 SMW, p. 38.

93 PR, p. 254.

verse of man's experience is simply unknowable by man. Therefore, the universe disclosed to man's experience must have an essence (an aesthetic harmony of general conditions) which forbids relationships beyond itself as a violation of its aesthetic harmony. The function of speculative reason is to disclose that essence in a scheme of necessary truths, truths that apply to every fact of the universe of experience.⁹⁴

(2) Another way in which Whitehead uses mathematics to show the possibility of metaphysical truths occurs in his analysis of the proposition, 'one and one make two.' To express a necessary truth, a proposition must fulfill three conditions. First, it must be meaningful for anyone who conceives it. Secondly, the proposition must be general in that its truth-value is asserted about actual-entities, the final real things of which the world is made up. If these first two conditions are fulfilled by a true proposition, the third condition is already fulfilled. For the third condition is that the proposition have the same truth-value in each of its uses; and a true, universal proposition is necessarily true of all its particulars. However, if the first two conditions are fulfilled by a false proposition, the third condition is not thereby fulfilled. For a false, universal proposition is not necessarily false of all its particulars. So a true proposition must fulfill the first two conditions (thereby auto-

matically fulfilling the third), and a false proposition must fulfill all three conditions in order to be metaphysical propositions. A metaphysical proposition has the same truth-value, no matter what the cosmic epoch might be.⁹⁵

Having offered these criteria for a metaphysical proposition, Whitehead points out that sometimes we certainly like to think that we do know such propositions. But, reflecting on the mistakes of the past respecting the foundations of geometry, he suggests that it is wise to reserve some scepticism about man's claim to have metaphysical knowledge. By an analysis of the proposition, 'one and one make two,' he attempts to give some justification first, for man's claim to have metaphysical knowledge, and secondly, for some scepticism about this claim.⁹⁶

First, he attempts to justify man's claim to have metaphysical knowledge. He explains that the proposition 'one entity and another entity make two entities' appears to be a meaningful truth to any subject which would conceive it. It thereby fulfills the first criterion of being meaningful. Further, the proposition is general in that its truth-value is asserted about actual entities. For in Whitehead's theory, every actual entity possesses a unique self-identity, and therefore no two actual entities can

95 PR, p. 300.

96 PR, pp. 300-301.

ever combine into a unity other than that which respects their unique self-identities. The proposition therefore fulfills the second criterion of generality. As a truth which is meaningful and general, the proposition has fulfilled the first two conditions and should be accepted as metaphysical knowledge.⁹⁷

Secondly, Whitehead tries to justify some scepticism in regard to man's claim to have such metaphysical knowledge. He points out that we often assert the above proposition, 'one entity and another entity make two entities,' thinking it to be metaphysical, when it is not so. The assumption which helps to make the proposition metaphysically true is that the two entities are contraries, incapable of being joined together to make simply a new unity which has dissolved the previous two entities. If that assumption is not true, then the proposition can sometimes be true and sometimes false. Therefore, it would not be a metaphysical knowledge. Whitehead points out that we hardly ever apply arithmetic in its pure metaphysical sense. We usually make assumptions, seldom made explicit, which justify the use of some mathematical propositions in our particular cosmic epoch.⁹⁸

97 PR, p. 301; Robert M. Palter, "The Place of Mathematics in Whitehead's Philosophy," Alfred North Whitehead: Essays on His Philosophy, ed. Kline (Englewood Cliffs: New Jersey, 1963) pp. 43-44.

98 PR, pp. 301-303; Whitehead's concept of actual entities as the fundamental units of reality does not directly apply to the every day world known by man. The entities which common-

Whitehead explains the assumptions we have to make about the proposition, 'one and one make two.' First, one thing is being added to another thing, not itself. Secondly, the two things added together must be the proper sort of things which added together issue in the proper group which we call two things. And thirdly, we must assume that the change of circumstances that occurs each time the proposition is used in a different context is unimportant. Common sense seems to tell us what we need to know about the meaning of the proper sort of togetherness and about the meaning of unimportant change of circumstances. But common sense makes assumptions which must be understood as the background of the meaning of its statements. Because common sense usually neglects the background of circumstances, Whitehead refuses to rely completely on the analysis of this background by common sense itself.⁹⁹

In this second defense of the possibility of metaphysical statements, Whitehead has attempted to show cause both for be-

sense man knows are built up out of many actual entities. Accordingly, since our mathematical propositions are often referred back to the world of common sense, mathematical propositions are truths about this cosmos, but not truths about every possible cosmos, i.e., not metaphysical truths.

⁹⁹ Whitehead, "Immortality," The Philosophy of Alfred North Whitehead, ed. Schilpp, pp. 699-700. Whitehead also points out that we cannot rely on the clarity revealed by the methods of the exact sciences because their methods are limited by their specific selectivities.

believing that the proposition, 'one and one make two,' is true without qualification about actual entities, and for reserving some scepticism as to this claim to metaphysical knowledge. The paradox of Whitehead's simultaneous defense and scepticism is clarified in the next defense of the possibility of metaphysical propositions by his appeal to algebra's method for handling the background of circumstances in common sense knowledge.

(3) Whitehead's direct response to Dewey in defense of metaphysical knowledge is a suggested comparison of the propositions of algebra with those of metaphysics. The method of algebra shows the best practical remedy of the obscurities involved in the background assumptions of common sense knowledge. Algebra's method helps to remedy ambiguous, unclear, and indistinct language by four assumptions. (i) Connectives such as 'of', 'is', 'and', and 'or' are chosen as capable of being expressed in a system of postulates in which the connectives receive mutual definition and in which these connectives are assumed to have invariable meaning. (ii) These connectives are used to relate and join together various concrete realities which are expressed by the device of the real variable. Again, it is assumed that the unspecified entities indicated by the real variables have meanings which do not differ in different contexts. (iii) It is assumed that the patterns of real variables thus connected are meaningful. (iv) Finally, it is assumed that when the algebraic meaning is com-

pleted by substituting the realities symbolized by real variables for the variables, the meaning of the connectives is not changed. This last assumption is that, even though the meaning of the connectives does change when substituting the concrete realities with all their circumstances for the variables, contrary to the assumption (1) that the connectives do not change their meanings, yet the change in meaning of the connectives is irrelevant.¹⁰⁰

The basic connectives of algebraic symbolism are like metaphysical principles (necessities) that underlie all particular facts. The real variables of algebraic symbolism are like the particular facts which exemplify metaphysical principles. Just as in algebra the basic connectives are assumed to have an invariant meaning or a meaning that changes irrelevantly when the realities are substituted for the variables, so in speculative philosophy the metaphysical principles are assumed to have an invariable meaning or a meaning that changes irrelevantly when the particular facts exemplify the metaphysical principles. In algebra this suffusion of the connectives with the things connected made difficult the discovery of the fundamental principles of arithmetic which would exclude as impossible any alternative formulation of the basis of arithmetical truth. In a similar way in the world, the suffusion of metaphysical principles with their exemplification

100 Whitehead, "Remarks," op. cit., p. 183.

made difficult the discovery of metaphysics and still now makes difficult the discovery of the fundamental principles of metaphysics which would exclude as impossible any alternative formulation of metaphysical truth. In both algebra and metaphysics, the abstraction of the invariable necessities from the exemplification of these principles shows why the necessities appear to be known clearly, but the suffusion of the invariable necessities with their exemplifications shows why the necessities are only deceptively clear. Although the perfect algebra is not yet formulated, the algebras which man has elucidated up to this day have a pragmatic justification. They work; we use them to change human life. In a similar way, we should expect that although the perfect metaphysics is not yet formulated, the metaphysics which men have attempted to elucidate should have a pragmatic justification. That is to say, we should expect that a metaphysics should make man's practical experience meaningful.¹⁰¹

Through this comparison of algebra and metaphysics and

101 Ibid., pp. 180, 183-184. Cf. FR, pp. 42-43: "The enormous advance in the technology of the last hundred and fifty years arises from the fact that the speculative and the practical reason have at last made contact. The speculative Reason has lent its theoretic activity, and the practical Reason has lent its methodologies for dealing with the various types of facts. Both functions of Reason have gained in power. The speculative Reason has acquired content, that is to say, material for its theoretic activity to work on, and the methodic Reason has acquired theoretic insight transcending its immediate limits."

their pragmatic justification, Whitehead may seem to be reducing speculative reason to a subordinate role to practical reason. It may seem that he has made metaphysics only a scheme which is used for making practical activity more fruitful, but it is not so. For he is only pointing out that a metaphysics which is without relevance to man's practical activity is not a good metaphysics since it omits a significant aspect of man's experience. Since practical activity is so pervasive of the whole world whether it is exemplified in the human world or non-human world, metaphysics may be seen as "the description of the generalities which apply to all the details of practice."¹⁰² A metaphysics is not simply a speculative understanding of the general principles underlying all particular facts but also a guide for intelligent practical activity. At the same time, a metaphysics is not simply a guide for intelligent practical activity but also a speculative understanding of the necessary principles which all particular facts exemplify.

Three defenses of speculative reason's function have been described: (1) the appeal to the unity of man's experiential world; (2) the appeal to man's confidence that some mathematical propositions are metaphysical knowledges; and (3) the appeal to the pragmatic justification of the assumption that such metaphysi-

102 PR, p. 19.

cal knowledges do not change their meaning or change only irrelevantly when they are exemplified.

(1) The following difficulty may be raised against that first defense in order to show how the sense of Deity supplements it. In appealing to the unity of man's experiential world, Whitehead has assumed that there is an essence to the universe which forbids relationships beyond itself as a violation of its aesthetic harmony. This is an assumption because Whitehead holds that the total universe must be related to man's unity of experience since anything outside this unity is simply unknowable. It may be granted that the truths which disclose the essence of the universe as experienced by man are metaphysical (necessary) in so far as they apply to everything experienced. But the difficulty remains that such truths may not be metaphysical if there are facts which exist but are neither related to man's unity of experience nor intelligible in terms of such truths as do apply to the universe of man's experience.

Christian points out that the supposition that there is nothing beyond our experience is the supposition that there is nothing which is absolutely transcendent. This supposition is the justification for constructing a categorical scheme in terms of which every actual entity can be interpreted. Christian evaluates this supposition as justifying only the conception of a logical harmony of being, i.e., a unity in thought but not necessarily in

fact.¹⁰³ "The supposition that all things are interconnected in some systematic way does not, of itself, justify us in going further and saying there is a harmony of being in some other and stronger sense."¹⁰⁴ Yet, Christian points out, "Whitehead does go further. In the last Part of Process and Reality, in the final chapters of Adventures of Ideas, and elsewhere he speaks of a 'Harmony of Harmonies' AI, p. 367 which is both the basis of morality and the object of religious experience."¹⁰⁵ In light of this evidence, Christian draws the conclusion that Whitehead's speculative philosophy is not pure speculative philosophy proceeding only from a speculative interest. A religious interest has a basic influence on Whitehead's attempt to do speculative philosophy.¹⁰⁶ Referring to two passages, one from Science and the Modern World and the other from Process and Reality, Christian suggests that Whitehead is asking the basic religious question in two forms: "What is it that rightly claims worship?" and "What is the (ultimate) source of refreshment and companionship?"¹⁰⁷

103 William A. Christian, "Some Uses of Reason," The Relevance of Whitehead, ed. Leclerc, pp. 84-85.

104 Ibid., p. 85.

105 Ibid.

106 Ibid., pp. 85-86.

107 Christian refers to these two passages: "The vision claims nothing but worship. . . ." SMW, p. 268. "It [the primordial actual entity] is here termed 'God'; because the con-

This study agrees with Christian's interpretation but proposes beyond his view that the religious intuition as the sense of Deity is an important evidence establishing Whitehead's metaphysical assumption of the universe as an aesthetic harmony. Christian has not analyzed the sense of Deity as Whitehead's attempt to make the religious intuition generally evident. The experience of the Totality as the ultimate source and end of all particular actualities (values) is an experience of the solidarity of the universe, of the ultimate rationality and aesthetic harmony of the universe. This experience is an intuited evidence which necessarily justifies the assumption that there is an essence to the universe which forbids relationships beyond itself as a violation of its aesthetic harmony, its rationality.

(2) and (3) Whitehead's appeal to a pragmatic justification of the ideal of speculative reason also needs to be supplemented by the sense of Deity. For Whitehead himself argues that "the formation of a general idea—such as the idea of the Order of Nature—, and the grasp of its importance, and the observation of its exemplification in a variety of instances are by no means the necessary consequences of the truth of the idea in question."¹⁰⁸

contemplation of our natures, as enjoying real feelings derived from the timeless source of all order, acquires that 'subjective form' of refreshment and companionship at which religions aim."

This idea of the Order of Nature is the ideal of speculative reason, for this idea means "that all things great and small are conceivable as exemplifications of general principles which reign throughout the natural order."¹⁰⁹ Therefore, for Whitehead himself the pragmatic justification of the truth of the ideal of speculative reason does not show that the ideal is necessarily true.

This difficulty of the insufficiency of such a pragmatic justification may be solved by the definition of Whitehead's philosophy as a pragmatism described in chapter two. Pragmatism is Whitehead's appeal to that self-evidence which sustains itself in civilized experience. One such self-evidence is the strong moral intuition that speculative understanding for its own sake is one of the ultimate elements in the good life of civilization. The intuited evidence which is at the basis of the moral intuition of the function of speculative reason is the sense of Deity. For the sense of the interconnected values of self, others, and the whole discloses the universe as a complex of interconnected facts that stimulates speculative reason to believe and hope that the connections can be analyzed and identified in order to be stated as the general principles that underlie all particular facts.

This chapter has studied how the sense of Deity and other defenses of speculative reason's function are mutually sup-

109 SMW, p. 7.

plementary. On the one hand, the sense of Deity defends crucial assumptions which these other defenses make; but on the other hand, these other defenses show how the assumption of speculative reason's function is consonant with the following evidences examined in the three parts of this chapter. (1) Perception in the mode of causal efficacy discloses the necessary connection of cause and effect, and the reduction of the ontological principle (the principle of efficient and final causality) to the principle of contradiction expresses the intelligibility of the cause and effect connection. Perception in the mode of causal efficacy is an experiential evidence which helps to explain how the sense of Deity is the primary experience underlying all human awareness. The ontological principle is a clear way of stating how the sense of Deity, the sense of the interconnected values of self, others, and the whole, is the sense of existence which is its own justification. (2) Whitehead's examination of the scientific endeavor and his consequent rejection of Positivism and the limitation of speculative understanding to science show how the scientific endeavor is in accord with the ideal of speculative reason. (3) Whitehead showed that the togetherness of things in one universe requires general conditions such as those expressed in mathematical understandings of the world. The attempt to gain a speculative understanding of the world is similar to the attempt to gain a mathematical understanding of the world. Whitehead also showed how

speculative philosophy uses a method similar to that of algebra for the handling of ambiguity and possible change of meaning in the fundamental principles of each discipline.

The sense of Deity and other defenses of speculative reason's function have been discussed as supplementary to each other. By themselves, these defenses do not constitute the actual doing of speculative philosophy, although they have important evidences to contribute. Whitehead's method of the working hypothesis requires that the ideal of speculative reason be treated as tentatively accepted until it is successfully attained to some degree. "In so far as metaphysics enables us to apprehend the rationality of things, the claim [the ideal of speculative reason] is justified."¹¹⁰ Since such a pragmatic justification does not establish the necessary truth of the ideal of speculative reason and since it is always possible for man to lose hope in this ideal due to the imperfection of all metaphysical systems, the preservation of such faith in reason must depend upon an ultimate moral intuition.¹¹¹ This moral intuition was shown in chapter two to be founded in Whitehead's description of the religious intuition as the sense of Deity.

110 PR, p. 67.

111 PR, p. 67.

CHAPTER IV

CONCLUSION

A. Solution to the Problem of this Study

The Introduction stated the problem to be an examination of the relevance of the sense of Deity to the function of speculative reason. Chapter one has identified the function of speculative reason by a discussion of reason and evolution. Since Whitehead admits the category of final causality as explanatory of emergent evolution, he defines the primary function of reason to be: (i) to constitute final causes, that is, to live; (ii) to emphasize final causes, that is, to live well; and (iii) to criticize final causality, that is, to live better. The function of practical reason is to achieve a purpose exterior to the satisfaction of reason itself, whereas the function of speculative reason is to satisfy its own purpose of understanding all matters of fact in terms of principles intelligible to itself. The Greek logic of discovery provides a set of five criteria by which any speculative understanding of reality should be tested. It is in terms of these criteria that Whitehead defines speculative philosophy and

its method for the fulfilment of the function of speculative reason. Speculative philosophy seeks to frame a coherent, logical, necessary system of general ideas which makes intelligible every element of experience. Speculative philosophy uses the method of the working hypothesis in order to fulfill the five criteria of the Greek logic of discovery. Although direct insight is the point of departure for reason's speculations, it is not a superior form of knowledge but one aspect in the whole constituting the method of the working hypothesis. The direct insight must be capable of being stated in systematic terms in order that it will fit in with and be verified by all of man's experience and knowledge.

Chapter two has shown a positive connection between rational religion and the religious intuition as the sense of Deity, on the one hand, and the function of speculative reason, on the other. Rational religion as a way of life involves the longing of man that the facts of existence, particularly the ultimate evil of temporal, valuable realities ceasing to be, should find justification, that is, value or finality, in the nature of existence. Consequently, rational religion seeks an all-encompassing value or finality for the particular, valuable, temporal realities. As an ultimate craving to understand particulars in terms of general principles, that is, in terms of an all-encompassing finality, rational religion is a demand for the intellectual justification of brute experience. The rationalism encouraged by rational religion

can easily overflow into the valuable human project of attempting to fulfill the function of speculative reason by scientific, mathematical, and metaphysical speculation.

Chapter two went on to show that since rational religion presupposes the religious intuition for Whitehead, rational religion's defense of speculative reason's function needs to be completed by the examination of the sense of Deity. The sense of Deity provides an intuited evidence of the reality of the all-encompassing finality which rational religion seeks. The sense of Deity is the experience of the interconnected values of self, others, and the whole of the world as derivative from the valuable interconnections of its members and as necessary for the continued existence of value. Thompson has described how this evidence is systematized in Whitehead's metaphysics, but Whitehead has also described it independently of that systematization. The sense of Deity is the presupposition of civilized experience for Whitehead both in its speculative and practical aspects. It is relevant to speculative reason's function because the sense of the interconnections of reality stimulates man to analyze and identify the interconnections. As the sense of the necessity of mutual connection of actualities, the sense of Deity is an intuited evidence at the base of Whitehead's moral intuition that speculative understanding for its own sake is one of the elements of the civilized life of man. The intuition required for the presupposition of

rationalism is an intuition of the universe as a complex of inter-connected facts. The sense of Deity is the intuition disclosing that the dim but fundamental meaning of existing actuality is intrinsic importance (i.e., intrinsic justification, purpose, value) for itself, for others, and for the whole world. To exist with such justification through final causality interconnected with the final causality of other actualities and of the whole is to be a matter of fact capable of being understood as an element exemplifying the general principles by which all actualities are connected.

Just as the sense of Deity is relevant to speculative reason's function, so also it is relevant to practical reason's function of achieving value. The sense of the interconnected values of self, others, and the whole as preserving the values of self and others is for Whitehead the presupposition of man's moral-religious life and his aesthetic life. As the presupposition of speculative and practical reason's functions the sense of Deity is necessarily affirmed by man in any attempt to achieve the value of civilization which their functions intend. The interpretations of Hartshorne and Tillich are correct in pointing to the sense of Deity, the sense of the interconnected values of self, others, and the whole, as a fundamental presupposition of Whitehead's speculative and practical philosophy.

In showing how the sense of Deity and other defenses of

speculative reason's function supplement each other, chapter three indicated the inadequacies of the Christian-Lowe-Leclerc interpretation. Christian's interpretation is correct in showing that Whitehead's systematic notion of God, i.e., of the primordial, consequent, and superject natures, is a derivative notion of Whitehead's categoreal scheme used to understand reality. However, Christian, Lowe, and Leclerc are not correct in omitting the relevance of the sense of Deity to the function of speculative reason as stated in the ontological principle, one of the fundamental principles of the categoreal scheme. Whitehead's defense of speculative reason's function by the reduction of the ontological principle to the principle of contradiction is successful only if one grants that all particular facts are intelligible in terms of general principles. Two difficulties were raised against the ontological principle. First, if every fact is unintelligible, it follows that entity can be reduced to non-entity. Whitehead's attempted reduction of the ontological principle to the principle of contradiction is only a restatement in different words of the function of speculative reason. Secondly, the difficulty was raised as to how one can affirm that the ontological principle is true without qualification unless one knows that God exists as the basis of metaphysical reasons.

The answer to these difficulties has been shown to lie in the relevance of the sense of Deity to the function of specula-

tive reason. The ontological principle constitutes the first, systematic step in Whitehead's description of the universe as a solidarity of many actual entities. The ontological principle must be recognized as starting to express in a systematic metaphysics the same solidarity of the universe which the sense of Deity establishes as an unsystematized, intuited evidence. The sense of Deity is a presystematic evidence which Whitehead will not let any theory explain away or deny. It is an evidence which supports the basic presupposition of any attempt at metaphysics, namely, that all actualities are intelligible. The ontological principle's reduction to the principle of contradiction is one way of expressing the intelligibility of the sense of Something that matters, the sense of Deity. For the sense of Something that matters, the sense of the interconnected values of the self, others, and the whole, is the sense of existence which is its own justification. The formulation of the function of speculative reason in terms of the ontological principle is part of Whitehead's attempt to develop the systematic principles of his metaphysics. Such principles allow him to examine the evidence of all of man's experience and thereby to clarify the relationship between Deity and the world in a systematic metaphysics. However, the clarification does not prove what was previously unknown, namely, that Deity exists. For the basic presupposition of metaphysics, namely, the presupposition of the function of speculative reason, relies ultimately on

the sense of Deity.

The mutually supplementary defenses of speculative reason's function by the sense of Deity and other evidences need to be fulfilled by the best defense: the actual doing of speculative philosophy. Whitehead's method of the working hypothesis requires that the ideal of speculative reason be treated as tentatively accepted until it is successfully attained to some degree. The ideal of speculative reason is justified in so far as metaphysics enables man to apprehend the rationality of things. However, since such a pragmatic justification does not establish the necessary truth of the ideal of speculative reason and since it is always possible for man to lose hope in this ideal due to the imperfection of all metaphysical systems, the preservation of such faith in reason must depend upon an ultimate moral intuition closely allied with religion. The basis of the moral intuition that speculative understanding for its own sake is part of the good life is found in Whitehead's description of the religious intuition as the sense of Deity.

B. Problems Suggested by this Study

This study is directly related to two further problems raised by Thompson and Hartshorne in their interpretations of Whitehead. (1) Chapter two pointed to Thompson's evaluatory remarks about Whitehead's description of religious experience in Religion in the Making and suggested that the Modes of Thought

description of the sense of Deity would constitute Whitehead's answer. The problem is whether or not Whitehead has answered Thompson. (2) The other problem arises from Hartshorne's claim to have worked out an a priori method in metaphysics which is consistent with Whitehead's philosophy. The problem is whether or not this method is consistent with Whitehead's thought. These two problems will be discussed in turn.

1. The Sense of Deity as an Evidence

Thompson holds that Whitehead was content simply to formulate a statement of the religious intuition and did not concern himself with answering questions about the precise nature and character of the data disclosed in the religious intuition. Consequently, Thompson holds that the religious intuition as described by Whitehead is both vague and ambiguous as an evidence in its own right. Whitehead himself considers an objection to his use of the religious intuition quite similar to Thompson's remarks. An intuition merely experienced in exceptional moments is a private psychological fact and is without general evidential force. Whitehead's answer is that those intuitions which emerge under exceptional circumstances and remain knowable only under such conditions have only personal significance.¹ But those intuitions which emerge under exceptional circumstances and become knowable

1 RM, pp. 63-64.

apart from those circumstances have more than personal significance; such intuitions have general evidential force. Such generally evident intuitions may be clearer under exceptional circumstances. This answer of Whitehead will constitute the criteria by which his own description of the sense of Deity will be evaluated. If Whitehead can describe the religious intuition in terms of the fundamental evidences and principles of his metaphysics, then he has not given a vague and ambiguous description of the religious intuition.

For the purpose of analyzing the evidence which Whitehead proposes for the sense of Deity, the evidence may be divided into four aspects: the religious intuition discloses reality (i) as Something that matters, and this includes the interconnected values of (ii) Internality, (iii) Externality, and (iv) Totality. These four aspects will be discussed in turn.

(i) Whitehead holds that the sense of importance is embedded in the very being of human and animal experience. His explanation in Modes of Thought successfully exhibits that evidence in terms of (a) his analysis of experience and (b) his principles of rationalism. (a) Selective attention which is a necessary aspect of consciousness presupposes importance. For sustained objection means disregard of irrelevances; and this disregard can only be sustained by some sense of importance. Consequently, the basic expression of man's primary experience is—Have a care, here is something that matters. The primary glimmering of consciousness

reveals Something that matters. The fundamental basis of this description is that a person's experience is a value-experience, expressing a vague sense of a power maintaining and realizing its own purpose. The essence of power is the drive of the person towards aesthetic worth for its own sake. This worth is not a feeling which man arbitrarily attributes to his grasp of reality. Rather, the drive towards worth is felt as exhibiting the very essence of actualities in the universe.

(b) Logical consistency of Whitehead's rationalism also upholds his concept of importance as embedded in matter of fact. The upholding of objectivity in scientific and reflective thought as an ideal is the insistence upon the importance of objectivity for man. Man's zeal for matter-of-fact truth irrespective of subjective human interests and values presupposes that true descriptions of matter of fact are very important for objective human interests and values. Consequently, matter-of-fact as objectively known is important for man.

(ii) and (iii) Whitehead holds that the sense of Something that matters differentiates itself into the inter-connected values of Internality (self) and Externality (others). His description in Modes of Thought successfully exhibits that evidence in terms of perception in the mode of causal efficacy. The sense of Something that matters is most clear in Internality, the self-feeling of its emotional worth now. This is the self feeling the

drive of the person towards aesthetic worth for its own sake. However, the self does not feel this apart from its causal derivation from its past (Externality) nor apart from its tendency to causally affect its future (Externality). The self's value-experience now embodies in itself value-experiences from the past. The most explicit example of derivation from the valuable past occurs in memory, in the self's awareness of its past actuality as fusing its self-enjoyment with its immediate present. The self also has the feeling that it has something important to express to others in the immediate future. This is the feeling that the self's importance now should become part of the importance of others. Both the past and the future of the self disclose evidence for the value of others (Externality) in the world.² Importance, limited to the self alone, solus ipse, ceases to be important. The self's conviction in and sense of importance, Something that matters, is intelligible only if the self's importance continues and develops the importance of the past and prepares for the importance of the future.³

2 Cf. AI, pp. 375-376: "Care for the future of personal existence, regret or pride in its past, are alike feelings which leap beyond the bounds of the sheer actuality of the present!"

3 Cf. AI, pp. 371-372: "the egoistic desire for fame . . . is an inversion of the social impulse, and yet presupposes it. . . . In the widest sense, it [the egoistic desire for fame] is the craving for sympathy. It involves the feeling that each act of experience is a central reality, claiming all things as its own. The world has then no justification except as a satisfaction

(iv) Whitehead holds that the sense of Something that matters differentiates itself into the interconnected values of Internality, Externality, and Totality. Whitehead claims that the self (Internality) feels itself as deriving from the Totality of value-experience of the past and as preparing its contribution for the Totality of value-experience of the future. This aspect of the religious intuition is the most difficult to give evidence for. This aspect of the religious intuition is that there is a unity in the universe which unifies the many past value-experiences into Totality and which shares this value of the Totality with present and future value-experiences. Whitehead's intuition is that only Deity, immanent in experience as the ultimate preserving unification of value-experiences and as the source of the world's unity of ideals, could make intelligible the unity of the transcendent universe for the preservation of values realized and for the ideals of the universe. Immanent in experience as the unification of value-experiences, Deity is the Totality which is directly experienced. Immanent in experience as the source of ideals, i.e., of potential values to be realized, Deity is the external standard to which human experience explicitly relates itself.

Whitehead has attempted to establish general evidence for

of such claims. But the point is that the desire for admiring attention becomes futile except in the presence of an audience fit to render it."

Deity as the Totality of value-experiences and as the source of ideals. This public evidence is the obviousness of the unification of value-experiences and the obviousness of the unity of the ideals of value-experience. To establish this as generally evident Whitehead must answer the following objections: how does he know that the unification of values achieved is a unification in fact and not in imagination, and how does he know that there is one source of all the ideals in the universe?

The best answers to these two questions are Whitehead's appeals to "modes of experience which in some degree are exceptional. It must be remembered that the present level of average waking human experience was at one time exceptional among the ancestors of mankind."⁴ Consequently, Whitehead believes he is justified "in appealing to those modes of experience which in our direct judgment stand above the average level."⁵ Whitehead appeals to the experience of Peace to establish that the unification of value-experiences is a unification in fact, and he appeals to the experience of unselfish love to establish that there is a unified finality to the universe.

"Peace . . . is a broadening of feeling due to the emergence of some deep metaphysical insight, unverbilized and yet mo-

4 AI, p. 379.

5 AI, p. 380.

mentous in its coordination of values."⁶ In the midst of the passing away of temporal beauty and heroism, "Peace is . . . the intuition of permanence."⁷ Peace is the intuition of the preservation by Deity of values achieved in the universe. If the unification were simply a deliberately imagined unification, the resulting feeling would be the "bastard substitute" of Peace, "Anaesthesia."⁸ Anaesthesia is the withdrawal of the self from life of the universe, whereas the experience of Peace coordinates the value-activity of the self with the value-activity of others and of the Totality. Since the unification of values achieved in the universe is experienced as factual, "Peace is self-control at its widest, —at the width where . . . interest has been transferred to coordinations wider than personality. . . . One of its fruits is . . . the love of mankind as such."⁹

The experience of unselfish love helps to establish that there is a unified finality to the universe. Unselfish love should be distinguished from selfish love. In selfish love, "all personal desire is transferred to the thing loved, as a desire for its perfection."¹⁰ This love excludes the rest of the universe;

6 AI, p. 367 (my emphasis).

7 AI, p. 369.

8 AI, p. 368.

9 AI, p. 368.

10 AI, p. 372.

the self is simply "clinging to a condition for selfish happiness. There is no transcendence of personality."¹¹ But unselfish love is:

. . . the love of self-devotion where the potentialities of the loved object are felt passionately as a claim that it find itself in a friendly Universe. Such love is really an intense feeling as to how the harmony of the world should be realized in particular objects. It is the feeling as to what would happen if right could triumph in a beautiful world, with discord routed. . . . Such love is distracting, nerve-racking. But, unless darkened by utter despair, it involves deep feeling of an aim in the Universe, winning such triumph as is possible to it.¹²

Unselfish love involves a deep feeling of a unified finality towards value in the Universe because such love hopes that the potentialities of the loved object find their actualization in a friendly, harmonious universe. Whitehead has appealed to the experiences of Peace and unselfish love to establish the factuality of unification of value experiences and the unified finality of the world.

Whitehead's appeal to such exceptional experiences needs to be supplemented by an appeal to more ordinary experiences. This further appeal is found in Whitehead's indication that the sense of Deity, the sense of the interconnected values of self, others, and the whole, is the presupposition of moral and speculative experience. Although Whitehead recognizes the relativity of moral

11 AI, p. 373.

12 AI, p. 373.

codes which men have constructed, he argues that "what these codes do witness to, and what their interpretation by seers of various races throughout history does witness to, is the aim at social perfection."¹³ This social perfection is "an abiding perfection in the nature of things, a treasure for all ages. It is not a romance of thought, it is a fact of Nature."¹⁴ The general principles underlying all moral codes are "the principles of the generality of harmony, and of the importance of the individual. The first means 'order,' and the second means 'love'."¹⁵ The apparent conflict between impersonal order and personal love is solved: (a) by valuing those orders in the degree in which they succeed in promoting worth of individual actualities; and (b) by valuing the individual in so far as he achieves self-worth and also promotes those valuable orders which themselves promote the worth of individuals.¹⁶ "The essence of Peace is that the individual," whose seeking of value is founded upon the religious intuition, "thereby is extending the influence of the source of all order."¹⁷

Just as moral experience presupposes and points obscure-

13 AI, p. 375.

14 AI, p. 375.

15 AI, p. 376.

16 AI, pp. 376-377.

17 AI, p. 377.

ly to the abiding value of the Totality, so also speculative reason's attempt to state objective truth presupposes and points obscurely to the objective structure of the Totality. Whitehead's Roycean argument for the primordial and consequent natures of God is based on the sense of Deity.¹⁸ Man believes that objective truth is possible because man has the sense that there is some structure to which all his judgments more or less adequately approximate. This sense of reality as a whole discloses to man that all his judgments are trying to express the realities (achieved values) which Totality objectively preserves and unifies. Because the arguments from moral and speculative experience are interpretations of experience and of the interpretations of those interpretations, these argumentations need to be completed by a systematic metaphysics. In fact, the way in which Whitehead has stated his Roycean argument and concluded to the actuality of God's primordial and consequent natures indicates that it cannot be properly discussed outside of his appeal to a variety of evidences for his systematic metaphysics. Consequently, although Thompson did not recognize the sense of Deity as Whitehead's attempt to make the religious intuition generally evident, Thompson is correct to have emphasized Whitehead's metaphysical concept of God as an interpretation of his description of the religious intuition. White-

¹⁸ Cf. ch. 2, pp. 102-105.

head explicitly points out that "it is impossible to fix the sense of fundamental terms except by reference to some definite metaphysical way of conceiving the most penetrating description of the universe. Thus rational religion must have recourse to metaphysics for a scrutiny of its terms."¹⁹

2. Hartshorne's Interpretation of Whitehead

Hartshorne identifies himself as an interpreter of Whitehead who has recognized a problem in Whitehead's claim that the method of philosophy by description of experience attains necessary truths.²⁰ Hartshorne has tried to work out a solution of this problem in general harmony with Whitehead's thought.²¹ Hartshorne's problem can be solved by appealing to the sense of Deity. For the difficulty which he raises is the very same difficulty raised in chapter three about Whitehead's assumption that necessary truths can be had from experience since what does not communicate with experience is simply unknowable.²² For Whitehead points out that the sense of Deity is that "starting point in philosophy" which "is the determination of that aspect of experience which

¹⁹ RM, p. 79.

²⁰ Charles Hartshorne, "Whitehead and Contemporary Philosophy," The Relevance of Whitehead, ed. Leclerc, p. 35; cf. RM, p. 88; PR, pp. 3-6.

²¹ Hartshorne, loc. cit.

²² Cf. chapter 3, pp. 165,-167.

most fully exhibits the universal necessities of existence."²³

This starting point in Whitehead's metaphysics is both descriptive and necessary. It is descriptive since it is based on immediate experience. Also, it is necessary since the sense of Deity discloses Totality as the ultimate source and end of all particular actualities. As chapter three pointed out, this experience justifies Whitehead's assumption that the universe of experience has an essence which forbids relationships beyond itself as a violation of its aesthetic harmony, its rationality. Accordingly, speculative philosophy is justified in its method of attempting to reach necessary truths in descriptive intuitions of immediate experience. It can work no other way since it must criticize abstractions only by intuitions of immediate experience. However, as chapter one pointed out, speculative philosophy must avoid the dogmatic fallacy which is the belief that the principles of its working hypothesis are clear, obvious, and irreformable. Speculative philosophy must embody the method of the working hypothesis since its first principles are the very elements which speculative reason is trying to grasp. Consequently, for Whitehead, there is always a tentativeness to the claim that a necessary or metaphysical truth has been disclosed in an intuition of immediate experience.

It is primarily in terms of Whitehead's criterion of the working hypothesis that Hartshorne's solution to the problem will be evaluated. In order to solve the problem of how metaphysical truths may be both experiential (descriptive) and necessary, Hartshorne proposes a notion of metaphysical truth based on logical consistency. "Metaphysical truths may be described as such that no experience can contradict them, but also such that any experience must illustrate them."²⁴ He defends logical consistency with every experience as the criterion of a priori metaphysical truth by distinguishing three kinds of statements: (1) those partially restrictive of existential possibilities; (2) those completely restrictive; and (3) those completely non-restrictive.

(1) Partially restrictive statements are illustrated by ordinary factual statements. If they are affirmative, they implicitly deny something, thereby restricting some existential possibility from being realized at the same time and place; and if they are negative, they implicitly affirm something. For example, to affirm that there are men in the room is to deny implicitly that the room is totally filled with air; and to deny that there are men in the room is to affirm implicitly that every part of the room contains something other than a man.²⁵

²⁴ Hartshorne, "Some Empty Though Important Truths," Review of Metaphysics, VIII, no. 4 (June, 1955) p. 557.

²⁵ Hartshorne, "Metaphysical Statements as Non-Restric-

(2) A completely restrictive statement is one such as, 'Nothing exists,' which would exclude anything and everything from existing. This statement restricts any existential possibility from being realized. Consequently, such a statement is unverifiable, since the verifying experience itself would have to exist. Also, such a statement is falsifiable, since the existence of any experience at all falsifies the statement. Accordingly, a completely restrictive statement is impossible to verify and always falsifiable since it is not consistent with the existence of any experience. Hartshorne suggests that the more plausible view of such statements is that they express 'impossibility' and not 'a conceivable but unrealized fact'.²⁶

(3) A completely non-restrictive statement is one which is consistent with the existence of any experience. Such a statement would be, 'Something exists.' Since this is the contradictory of the completely restrictive statement, 'Nothing exists,' it should be necessarily true. For a completely restrictive statement is impossible, and the contradictory of an impossible statement is necessary. In contrast to the completely restrictive statement which was unverifiable and always falsifiable, the completely non-restrictive statement is always verifiable and unfal-

tive and Existential," Review of Metaphysics, XII, no. 1 (Sept., 1958) p. 35.

26 Ibid.

sifiable. The statement, 'Something exists,' is unfalsifiable and always verifiable, since the supposed falsifying experience would itself have to exist and would thereby verify it rather than falsify it. Accordingly, Hartshorne proposes that a statement which is unfalsifiable and always verifiable by the existence of any experience is the criterion of metaphysical truth. A metaphysical truth as a completely non-restrictive statement is to be discerned through its properties of being unfalsifiable and always verifiable by any experience.²⁷

Hartshorne views metaphysics as studying non-restrictive existential affirmations in contrast to mathematics which studies non-restrictive, non-existential affirmations. Mathematical statements, as usually interpreted, affirm, not that something with a certain character exists, but that if it did, such and such would also be the case. Mathematics explores relations between possibilities without affirming that possibility exists.²⁸ In contrast, "metaphysics tries to express what all possibilities of existence have in common excluding blank non-existence as an impossibility."²⁹ Metaphysics explores being qua being, namely the strictly universal features of the ultimate realities, those features which can-

27 Ibid., pp. 35-36.

28 Ibid.

29 Ibid.

not be unexemplified, such as the statement, 'Something exists.'³⁰

Since the proposition, 'Something exists,' is necessary, Hartshorne argues that the contemporary dogma is wrong which asserts that a statement is rendered contingent by the mere fact that it asserts existence. For the false dogma, 'all existential statements are contingent,' the following true principle should be substituted, 'all partially restrictive statements are contingent and all completely non-restrictive statements are necessary.'³¹ The criterion for a metaphysical truth is whether or not positive illustration of the proposition is inconsistent with, that is, would exclude, anything positive. This criterion of metaphysical, a priori truth may be incapable of clear and certain application by man's cognitive powers. But such a difficulty would not make metaphysical truth unknowable in itself. For what is common to all possible worlds is certainly included in the present actual world; it is only a matter of trying to identify the metaphysical elements, which again may be quite difficult.³²

Hartshorne's proposal for determining metaphysical truth in an a priori way through consistency with every possible experience is in fundamental agreement with Whitehead's comments on

30 Ibid., p. 37.

31 Ibid., pp. 35-37.

32 Hartshorne, "Some Empty Though Important Truths," op. cit., pp. 556-557.

metaphysics and consistency. For Whitehead does hold that metaphysical truths are necessary truths which apply to every possible and actual experience.³³ Further, Whitehead agrees with basing logic upon the concept of consistency-inconsistency. Inconsistency introduces Spinoza's concept of finitude. The finite is necessarily inconsistent with some other state of affairs, since limitedness to a square, for example, prevents the finite reality from being at the same time a circle. Inconsistency as the basis for logic is a fundamental principle of Whitehead's metaphysical understanding of reality in process. By means of process, the universe can escape from the exclusions of finite inconsistency.³⁴

In other words, Whitehead has stated that the criterion of a non-metaphysical proposition is that it excludes the simultaneous realization of another meaningful proposition. Accordingly, Hartshorne agrees with Whitehead in proposing that partially restrictive propositions, that is, ordinary factual statements, are contingently true, whereas completely non-restrictive proposi-

33 PR, pp. 5-6.

34 MT, pp. 72-73, 75: "The concept that two propositions, which we will name p and q, are inconsistent, must mean that in the modes of togetherness illustrated in some presupposed environment the meaning of the propositions p and q cannot both occur. Neither meaning may occur or either may occur, but not both. Now process is the way by which the universe escapes from the exclusions of inconsistency."

tions, that is, metaphysical statements exemplifiable by any possible experience, are necessarily true.

However, Hartshorne's a priori method for discovering metaphysical truths appears to violate Whitehead's method of the working hypothesis. For Hartshorne argues that all metaphysical truths are implied by the fundamental, metaphysical truth 'something exists.' He seems to be saying that a simple analysis of that proposition will disclose "Within its meaning all the metaphysical truths."³⁵ However, that procedure is not what Hartshorne is proposing, but rather experimentation with meanings of propositions to discover those propositions which are completely non-restrictive. He explicitly rejects the fallacious notion that insights into the absolute must be absolute insights, that is, that insights into metaphysical truths must be unqualified insights. Any insight into a metaphysical truth should be accepted not as an absolute, never to be reconsidered, but rather as an hypothesis to be considered in light of its deductive implications and of how well it fits into all man's experience. Accepted as hypotheses, such insights should be defended against a vigorous devil's advocate. Such insights should be expanded by deduction as a way of testing the insights by examining the self-evidence and testability of their consequences.³⁶ Hartshorne's procedure

³⁵ Hartshorne, "Metaphysical Statements as Non-Restrictive and Existential," op. cit. p. 37.

³⁶ Hartshorne, Man's Vision of God and the Logic of

is to experiment with such insights by trying to find those which are a priori consistent in mutually implying each other and in being completely non-restrictive and which are exemplified a posteriori in all experiences.³⁷ Therefore, Hartshorne's procedure does embody the Whiteheadian method of the working hypothesis.

Hartshorne's exemplification of his method should help to clarify his procedure. He proposes that the following propositions are completely non-restrictive (metaphysically true) and mutually imply each other:

- [1] Necessarily, something exists.
- [2] Necessarily, experience occurs.
- [3] Necessarily, creative synthesis occurs.
- [4] Necessarily, there are concrete actualities all of which are both externally and internally related, both absolute and relative.
- [5] Necessarily, divine or infallible experience, having fallible experiences among its objects, occurs.³⁸

(1) The statement, 'something exists,' has been considered with regard to its complete non-restrictiveness. It excludes nothing except bare nothing itself, and the existence of bare nothing is no existence. Further, the statement is in principle unfalsifiable and always verifiable by any existent experience which would grasp its meaning, since the experience itself exists. As

Theism (Hamden: Archon Books, 1964) pp. 68-70.

³⁷ Ibid., pp. 71-72. Cf. Hartshorne, A Natural Theology for Our Time (LaSalle: Open Court, 1967) pp. 29-31.

³⁸ Hartshorne, "Metaphysical Statements as Non-Restrictive and Existential," op. cit., p. 47.

consistent with every possible state of affairs, the statement is necessarily true.

(2) The statement, 'experience occurs,' is in principle unfalsifiable and always verifiable by any existent experience, since the experience itself exists. The statement does not appear to exclude any existential possibility. For 'experience' is not to be taken in the sense of human or animal experience but in the metaphysical sense which Hartshorne and Whitehead propose. The existence of human experience would exclude at that same time the existential realization of a world without human experience, but the existence of experience itself does not exclude any possible state of affairs from occurring.³⁹ For in Whitehead's and Hartshorne's view, an act of experience is an appropriate way of conceptualizing actual entities, the ultimately real things which constitute the world.⁴⁰ Accordingly, Hartshorne concludes that this line of thought "strongly suggests, and I think proves that it [statement (2)] is necessarily true, or an a priori valid statement. . . . I conclude, that if the statement . . . is restrictive, there is no way to ascertain this. I think it is non-restrictive, and so necessary."⁴¹

39 Ibid., pp. 38-39.

40 PR, p. 28.

41 Hartshorne, "Metaphysical Statements as Non-Restrictive and Existential, op. cit., pp. 38-39.

Hartshorne has stated his conclusion about the necessary truth of statement (2) in a tentative way. This tentativeness is appropriate since the statement presupposes that the concept of experience can be generalized from human and animal experience to an analogous concept consistent with every possible state of affairs. The devil's advocate in the court of metaphysical inquiry should attack such a presupposition, and Hartshorne would be required to defend it at some length. A convincing defense, for example, would have to show how such a generalization would help make emergent evolution intelligible.⁴² Without such a defense, the Whiteheadian metaphysician cannot be sure that the generalization is valid, that is, consistent with any possible state of affairs. Without testing the application of the generalization to reality, Hartshorne runs into the difficulty that his criterion of metaphysical, a priori truth may be incapable of clear and certain application with regard to the statement, 'experience occurs.' The mere application of the criterion, the simple non-contradictoriness of a concept which is completely non-restrictive of any possible state of affairs, to the concept, 'experience occurs,' is not sufficient for judging it to be metaphysically true.⁴³ The mind is left with the desire that verification be had in which the

⁴² Cf. FR, pp. 3-34.

⁴³ Hartshorne, "Metaphysical Statements as Non-Restrictive and Existential," op. cit., p. 39.

concept is actually seen to be applied meaningfully to various different states of affairs.

The same difficulty raised with regard to the claim that statement (2) is necessarily true can be raised with regard to statements (3) and (4), 'creative synthesis occurs,' and 'there are concrete actualities all of which are both externally and internally related, both absolute and relative.' The apparently successful application of the criterion of metaphysical, a priori truth does not suffice to judge these statements as necessarily true.⁴⁴ The mind is left with the desire that verifications be had in which the concepts are meaningfully applied to various different states of affairs. In light of these reflections, Hartshorne's procedure for determining metaphysical truth by an a priori criterion is a valid Whiteheadian development of the method of the working hypothesis; but Hartshorne's procedure needs to be supplemented by the inductive method Whitehead himself used.

It is in this light that Hartshorne's methodological commitment to the redoing of Anselm's ontological argument must be judged. Hartshorne's redoing of the argument is valid according to his Whiteheadian criterion of metaphysical truth as completely non-restrictive. In fact, it would be a dis-confirmation of Whitehead's theism if it were impossible a priori to form a concept of

⁴⁴ Ibid., pp. 39-43.

Whitehead's God as a non-contradictory possibility which was completely non-restrictive.⁴⁵ However, as Hartshorne himself points out, the whole burden of asserting the existence of God as a metaphysical truth should not be placed on the ontological argument, since other approaches are available in Whiteheadian metaphysics. All such approaches, including the ontological argument, should be used as mutually confirming each other.⁴⁶

The brief defense outlined in this section is only a suggestion of the full defense which Hartshorne recognizes should be given for a criterion of a priori metaphysical truths. A thorough consideration of symbolic logic and the philosophy of symbolic logic and of the nature of contingent and necessary truths needs to be developed.⁴⁷ Consequently, Hartshorne's proposal is a reformable, human attempt to identify the criterion of a priori metaphysical truth. Both Christian and Leclerc, on the one hand, and Hartshorne, on the other, are correct to emphasize

⁴⁵ Cf. Hartshorne, A Natural Theology, pp. 33-43.

⁴⁶ Cf. Hartshorne, Man's Vision of God, pp. 339-340. One way in which Hartshorne redoes the ontological argument is his appeal to the Roycean argument which Whitehead himself accepts. Any attempt to state an objectively true statement, even the positivist attempt to deny meaning to the concept of God, necessarily establishes the existence of God as the critical judge of all judgments. Consequently, for Hartshorne such positivism is necessarily false, and theism necessarily true.

Hartshorne, The Logic of Perfection, p. 70; "Metaphysical Statements as Non-Restrictive and Existential," op. cit., p. 45.

⁴⁷ Hartshorne, The Logic of Perfection, pp. 53, 73-89.

the tentativeness, the contingency, of any claim to metaphysical truth, whether the truth be proposed inductively by analogous generalization and verification in experience for Christian and Leclerc, or deductively by analogous generalization and experimentation with such axioms in an a priori way by Hartshorne. For the tentativeness of philosophical insight and argument is the basic principle speculative reason must follow in attempting to fulfill its function.

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APPROVAL SHEET

The dissertation submitted by William Martin O'Meara has been read and approved by members of the Department of Philosophy.

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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